

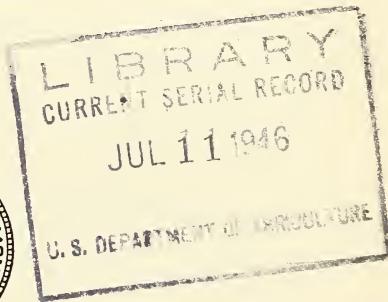
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Time Expenditures on Homemaking Activities in 183 Vermont Farm Homes

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Time Expenditures on Homemaking Activities in 183 Vermont Farm Homes

By MARIANNE MUSE¹

Home Economist

A farm housewife is a busy person. Not infrequently she wonders how she can possibly do all the things needing to be done in her home. She is continually asking herself such questions as "What job should I do first?" and "Can I take time to do this task carefully?" These questions arise because of the number of jobs which she must do and because there are often several of these jobs needing to be done at the same time. Too, her work must be done in different parts of the house and even outside of the house. Of course, every homemaker is constantly faced by the necessity of deciding the relative values of specific activities in terms of the welfare of her family and of its individual members. Because of these facts, the management of her time and the time of her helpers is one of the farm homemaker's chief concerns.

This bulletin reports the findings of the first phase of an investigation undertaken to learn how time can be saved in housework. The findings reported herein will serve as background material for investigations to be conducted in work simplification of specific housekeeping tasks. The findings are concerned chiefly with the allocation of the housewife's time; time expenditures of other persons on housework; the conditions under which housework is done; the accomplishments; and the relationships between time expenditure on specific tasks and such factors as household composition, equipment in use, accomplishments, and time expenditure on other tasks.

COLLECTION OF DATA

Families Interviewed

This bulletin reports findings in 183 farm homes located in seven towns in Chittenden County, Vt. (Fig. 1). All of the data were obtained through personal interviews with housewives during a period of about 3 weeks commencing July 15, 1943. The field agents were instructed to interview briefly every farm family within a selected

¹ The data for this investigation were collected by six field agents: Mesdames L. W. Burgess, James Edie, and G. S. Hicks, and the Misses Amy Hammond, Elizabeth Isham, and Elizabeth Whitney. Margaret Openshaw helped with direction of field work, editing, and analysis of data, and made the charts for this bulletin.

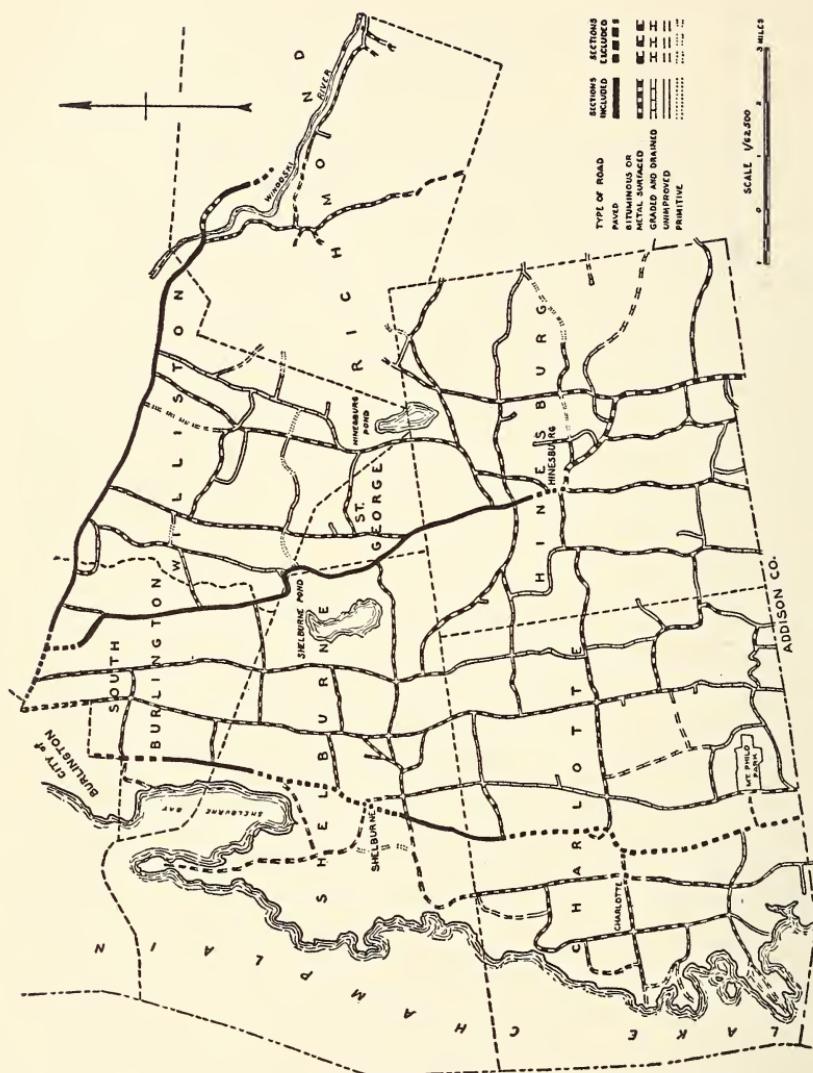


Fig. 1. Location of the farm homes included in the study.

area, in order to determine each family's eligibility² for inclusion in this investigation, and to obtain the desired information from every eligible family.

The eligibility requirements prevented waste of time in interviewing persons probably unable to give satisfactory information concerning time management in farm homes, and they insured a sample sufficiently homogeneous for the purposes of this study. As a result of these controls, the families studied had the following characteristics in common:

A family member operated a farm as owner or renter.³

The chief source of the farm income was a dairy, poultry, maple products, potatoes, fruits, vegetables, or combinations of these.⁴

Gross cash income from farm products sold during 1942 or expected to be sold during 1943 equaled at least \$500.

The farm operator was a man of 18 or more years.

The homemaker was a woman of 18 or more years who was the wife of the farm operator, or, if he had no wife living in the home, was his mother, sister, or daughter.⁵ She had been the homemaker for the family for at least the 12 months preceding the interview.

The family had lived for at least the preceding 12 months in the house occupied at the time of the interview.

The roads or sections of roads to be covered were marked on copies of the General Highway and Transportation Map of Chittenden County,⁶ and all "farm units" designated on that map within the chosen area were numbered. These numbers were placed on cards on which were to be recorded the data necessary for the determination of eligibility, and these record cards were given to the field agents together with marked copies of the map. Each agent visited all the "farm units" along the roads assigned to her and filled in the corresponding record cards. If more than one economic family lived on one of these farms, the agent visited and filled in a record card for each additional family. She also located all farm dwellings along the assigned roads not shown on the map and interviewed and made a record card for each farm family occupying such a dwelling.

² For a statement of the eligibility requirements see Appendix A, which defines or explains a number of the words used in this bulletin.

³ There were 162 owners and 21 renters.

⁴ There were 178 dairy farms, 3 poultry farms, 1 orchard, and 1 farm on which poultry and orcharding were combined.

⁵ There were 170 wives, 9 mothers, and 4 sisters among the homemakers.

⁶ Prepared by the Vt. State Highway Dept., in cooperation with the U. S. Dept. Agr., Bur. Public Roads.

Table 1. Number of Farm Families of Various Tenure Groups Failing To Meet Each of Nine Eligibility Requirements

Eligibility requirements*	Total (153)	Owners (79)	Renters (26)	Managers (10)	Laborers (38)
Owner or renter	48	0	0	10	38
Source of income	17	15	2††
Amount of income	33	28	5††
Operator an adult man	9‡	8	1	0	0
Homemaker an adult woman	11§	8	1	1	1
Homemaker a family member	10	9	1	0	0
Homemaker for 1 year	12||	8	2	1	1
Wife homemaker if in home	7	6	1	0	0
Family in house 1 year	63	23	21	6	13

* See appendix, pages 65 and 66, for specific statements of the nine eligibility requirements.

† Source of farm income is used to mean returns from farm products sold by the family. Farm laborers and managers received their income as wages or salary, the amounts of which were not considered in this investigation.

‡ All nine operators were women.

§ Nine men lived alone, 1 household was composed of a father and son, 1 young girl kept house for her family.

|| All these ineligible homemakers were adult women: 7 were wives, 4 daughters, and 1 a sister of the farm operator.

There were 549 record cards filled in. Of these, 521 had been numbered in the office to correspond with the "farm units" shown on the map and 28 were for additional farm families found by the field agents. For 158 of the "farm units," the dwellings were occupied by non-farm families or were vacant, or there were no dwellings

Table 2. Numbers of Farm Families Failing To Meet Various Combinations of the Eligibility Requirements

Eligibility requirements*	Owner or renter	Income		Operator adult man	Homemaker			Family in house 1 year
		Source	Amount		Adult woman	Family member	For 1 year	
Owner or renter	26	.....†	.....†	.....	2	.....	1	.....
Source of income	3	9	.....	1	.....	.....	1
Amount of income	15	.....	.....	1	.....	3
Operator an adult man	9	.....	.....	.....	.....
Homemaker an adult woman	5	.....	.....	1
Homemaker a family member	6	.....	3
Homemaker for 1 year	3	1
Wife homemaker if in home	1
Family in house 1 year	34
Owner or renter AND								
Homemaker for 1 year††	1
Amount of income AND								
Source of income	2	.....	.....	1
Amount of income AND								
Homemaker for 1 year	1

* See appendix, pages 65 and 66, for specific statements of the nine eligibility requirements.

† Source of farm income is used to mean returns from farm products sold by the family. Farm laborers and managers received their income as wages or salary, the amounts of which were not considered in this investigation.

at the time of the interviews. Insufficient information for determining eligibility was obtained from two farm families.

Of the 389 farm families interviewed, 153 (or almost 40 percent) were ineligible for inclusion in this study. More than 40 percent of the ineligible farm families had lived less than 12 months in the house occupied at the time of the interviews and more than 30 percent were headed by managers or laborers. Among the owners' families the most frequent inabilities were families with gross cash farm incomes below \$500, but almost as many were families who had lived for less than a year in the house then occupied (Table 1). This latter was the chief cause of ineligibility of renters' families. About half of the families who were ineligible because they were headed by laborers and managers were ineligible for other reasons as well (Table 2). The numbers and percentages of the families interviewed who were eligible and ineligible varied from town to town (Table 3).

The homemaker in each of the 236 eligible families was asked to give the information needed for this investigation, these data being

Table 3. Eligibility of the Families Interviewed in the Several Towns. Total Number of Record Cards from Each Town, and Numbers and Percentages of Them Which Were from Eligible and Ineligible Farm Families, and from Other Disqualifying Sources

Town	Total record cards	Cards from farm families			Cards from other sources*	
		Eligible	Ineligible			
Charlotte	160	62	44		54	
Hinesburg	136	63	30		43	
Richmond	16	11	4		1	
St. George	16	6	5		5	
Shelburne	72	31	18		23	
South Burlington	57	29	18		10	
Williston	92	34	34		24	
Total	549	236	153		160	
		P	e	r	c	t
Charlotte	100		39		27	34
Hinesburg	100		46		22	32
Richmond	100		69		25	6
St. George	100		38		31	31
Shelburne	100		43		25	32
South Burlington	100		51		32	17
Williston	100		37		37	26
Total	100		43		28	29

* Includes 88 non-farm and 54 vacant dwellings, 16 cases where there were no dwellings, and 2 farms where persons contacted were unable to give sufficient information for determining eligibility.

recorded during the interview on a carefully prepared schedule. Of the 190 schedules which were obtained,⁷ 183 were usable.

The findings reported in this bulletin are, therefore, based on information obtained through personal interviews with the homemakers of 78 percent of the eligible farm families in the selected area. For the several towns, the proportion of the eligible families supplying usable schedules varied from 63 to 100 percent (Table 4).

Table 4. Usable Schedules Obtained in the Several Towns in Relation to the Numbers of Eligible Farm Families Interviewed

Town	Eligible families		
	All	Supplying usable schedules	
	Number	Number	Percent
Charlotte	62	48	77
Hinesburg	63	40	63
Richmond	11	7	64
St. George	6	6	100
Shelburne	31	30	97
South Burlington	29	23	79
Williston	34	29	85
Total — — — — — — — —	236	183	78

Information Obtained

Each homemaker was asked to tell how she had spent the preceding weekday and to estimate the amount of time she had spent on her various activities. These time expenditures were recorded on the schedule under 33 homemaking activities⁸ and 10 activities of other types,⁹ the amount of time spent on each being entered to the nearest quarter of an hour. If less than 8 minutes was spent on any activity, a check mark but no time entry was made in the given space on the schedule. When two or more tasks were done simultaneously, the overlapping of time was indicated and the time expenditure was distributed between the activities. The agent totaled the hours reported and if they added to less than 23 or more than 25 she continued the discussion of the past day's activities until the estimated time expenditures on them seemed to be fairly accurate.

Estimates were then obtained of the amounts of time spent by the homemaker on the 43 activities during each of the other days of

⁷ Of the 46 eligible housewives from whom no schedules were gotten, 20 would have given the information if the agents could have returned a few days later; 3 didn't have time during the summer for the rather long interviews; 12 refused the information; and 11 could not be interviewed because of such reasons as illness, deafness, or language difficulties.

⁸ As shown in Tables 12 to 15 and as defined in the appendix. The activity classification corresponds quite closely with that used by Warren in New York. Warren, Jean. 1940. Use of Time in Its Relation to Home Management. N. Y. (Cornell) Sta. Bul. 734.

⁹ As used in Table 6.

the preceding week. The women had, as would be expected, given some of this information along with that for the preceding day. Entries for these 6 days were not totaled by the agent in the home and she had the housewife reconsider estimates only when there seemed to be omissions or glaring overestimates or underestimates of time expenditures.

There was no attempt to learn the order in which the activities occurred. References to clock time were made only when the housewife was asked to state the time of getting up and of going to bed and the time for any activity which regularly occurred at a specified time of day. These entries were used by the field agents and by the editors in checking the apparent accuracy of the time estimates.

By this procedure the women were able, without taking too long, to account for the use of their time without great difficulty and, seemingly, with a fair degree of accuracy. The housewives' estimates of their time expenditures on various activities accounted for an average of 24 hours for the weekday immediately preceding the interview. The hours accounted for averaged $23\frac{3}{4}$ for the second and third days before the interview, $23\frac{1}{2}$ for the fourth and fifth, and $22\frac{3}{4}$ hours for the sixth. Averages for the days of the week, regardless of nearness to the day of the interview, ranged from $23\frac{1}{4}$ hours for Thursdays to 24 hours for Saturdays. It should be noted in this connection that from 16 to 20 percent of the interviews were held on each of the days Monday through Friday and that only 7 percent of them were on Saturday.

The time estimates of 41 percent of the housewives totaled between $23\frac{1}{2}$ and $24\frac{1}{2}$ hours for the average day. The estimates of 59 percent fell within this range for the weekday preceding the interview (Table 5).

During and immediately following the reporting of her own time expenditure, the housewife estimated the time spent by other persons on each homemaking activity for the several days. She also

Table 5. Numbers and Percentages of the Housewives Whose Estimates of the Hours Spent in a Day on Their Activities Fell Within Various Time Ranges

Range in hours accounted for	For average day			For weekday preceding interview		
	Number	Percentage	Cumulative percentage	Number	Percentage	Cumulative percentage
24	13	7	7	26	14	14
24 $\pm \frac{1}{4}$	30	16	23	46	25	39
24 $\pm \frac{1}{2}$	33	18	41	37	20	59
24 $\pm \frac{3}{4}$	20	11	52	40	22	81
24 ± 1	25	14	66	34	19	100
24 $\pm 1\frac{1}{4}$ to $1\frac{1}{2}$	31	17	83	....	....	....
24 $\pm 1\frac{3}{4}$ to 2	18	10	93	....	....	....
24 $\pm 2\frac{1}{4}$ to $3\frac{3}{4}$	13	7	100	....	....	....

told of the types of farm work done by herself and by other women and the children of the family, and estimated the amounts of time spent by each of these persons on the various types of farm work.

Other information obtained during the interviews had to do with household content, amounts of various types of housework accomplished, typicalness of the week considered, the combining of tasks, the housewives' means of saving time, and some information regarding the house and its equipment.

ALLOCATION OF THE HOMEMAKERS' TIME AMONG 11 CLASSES OF ACTIVITIES

Homemaking activities of these 183 Vermont farm housewives claimed, on the average, $64\frac{1}{2}$ hours during the week (Table 6,

Table 6. Housewives' Allocation of Their Time During the Week Among 11 Classes of Activities

Class of activity	Housewives engaging in the activity						
	Average time for 183 housewives		Cases	Time spent			H o u r s
	Hours	Percent		Number	Average	Minimum	
Homemaking	$64\frac{1}{2}$	38	183	$64\frac{1}{2}$	$18\frac{3}{4}$	$120\frac{1}{4}$	
Farm work and business...	10	6	140	$13\frac{1}{4}$	$\frac{1}{4}$	$54\frac{1}{2}$	
Gainful employment	1	1	13	$12\frac{3}{4}$	$1\frac{1}{2}$	$38\frac{3}{4}$	
Gardening and grounds....	2	1	87	4	$\frac{1}{4}$	24	
Neighborly and com- munity	$1\frac{1}{4}$	1	65	$3\frac{3}{4}$	$\frac{1}{4}$	$23\frac{1}{2}$	
Personal activities	10	6	183	10	$2\frac{3}{4}$	40	
Meal eating	9	3	183	9	$3\frac{1}{2}$	$19\frac{1}{2}$	
Resting, day and evening	5	3	133	$6\frac{3}{4}$	$\frac{1}{2}$	30	
Sleeping, night	$59\frac{1}{4}$	35	183	$59\frac{1}{4}$	$36\frac{3}{4}$	$76\frac{1}{2}$	
Illness	$\frac{1}{4}$	0	6	$4\frac{1}{4}$	2	9	
Miscellaneous activities....	$2\frac{1}{2}$	2	137	$3\frac{1}{4}$	$\frac{1}{4}$	14	
Unaccounted	$3\frac{1}{4}$	2****	
All activities — —	168	100	183	168	$143\frac{1}{4}$	$194\frac{1}{4}$	

* See page 9.

Fig. 2). This amounted to 38 percent of their total time and 59 percent of their waking hours. One-fourth of the housewives spent between $18\frac{3}{4}$ and 54 hours on these activities, one-half of them between 55 and 74 hours, and the remaining quarter between 75 and $120\frac{1}{4}$ hours.

The wide range between $18\frac{3}{4}$ hours and $120\frac{1}{4}$ hours indicated some consideration of the extreme cases. Of the eight housewives who spent less than 35 hours (or less than one-fifth of their total time during the week) on homemaking activities, all but two had more than the average amount of help in their homes from family

members or hired workers and all but another two did more than the average amount of farm work.

Of the five housewives whose homemaking activities claimed between $96\frac{1}{4}$ and $120\frac{1}{4}$ hours during the week, all but one had large

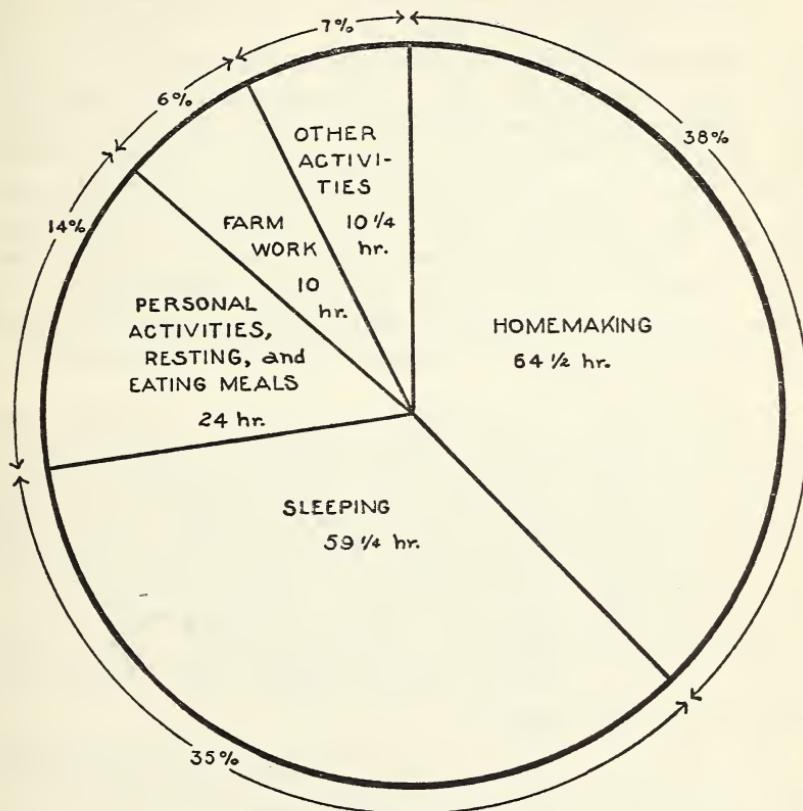


Fig. 2. The housewives' allocation of their time for the week.

households including several young children and the remaining one had a young child. Three of these five had only $1\frac{1}{2}$ to $1\frac{1}{2}$ hours of help during the week and the other two had only very slightly more help than did the average housewife.

The housewives averaged more than 8 hours of sleep at night. While more than a fourth of them reported that they had no rest during the day or evening, those who did have rest had enough to amount to an average of three-fourths hour per day for all housewives. This resting time did not include any of the time spent in such restful pursuits as reading, listening to the radio, playing the piano, writing letters, and entertaining friends. The time spent on them was classed under personal activities along with that spent on

personal and health care and the homemaker's recreation other than that participated in with family members. Personal activities for the week took from $2\frac{3}{4}$ to 40 hours and averaged 10 hours. Slightly more than an hour a day was spent eating meals.

Less than half of the homemakers gave any time during the week to flower or vegetable gardening¹⁰ or to care of the grounds. For those who did such work, the hours so spent during the week ranged from $\frac{1}{4}$ to 24, and averaged 4. Thirteen housewives engaged in some gainful employment other than the farm business, spending thus from $1\frac{1}{2}$ to $38\frac{3}{4}$ hours, or an average of $12\frac{3}{4}$ hours. Only slightly more than one-third of all the homemakers reported spending any time during the week in any neighborly or community activities. Perhaps they were too busy at home during this week in the middle of the summer to contribute as much time to such activities as they would generally give to them. Gasoline rationing was, of course, the reason for some, perhaps considerable, curtailment of community activities.

Twenty of the 183 homemakers were not away from the farm at any time during the week, while the other 163 were away for an average of $8\frac{1}{4}$ hours during the week. Time away from home was not recorded unless it amounted to as much as an hour. The longest continuous time away was $2\frac{1}{2}$ days. There were 43 homemakers who were away on only 1 day, 54 who were away on 2 days, and 20 on 3 days, while 3 were away on 6 or 7 days. This time away from home included all trips, whether for household shopping, farm business, visiting a doctor, attending movies, helping with a community project, or any other purpose.

More than three-fourths of the housewives spent some time during the week on farm work or farm business. The hours spent on such work ranged from $\frac{1}{4}$ to $54\frac{1}{2}$, and averaged $13\frac{1}{4}$ for the women doing such work and 10 for all housewives.

FARM WORK DONE BY WOMEN AND GIRLS

Time Spent on Farm Work

The women and girls of some of the families did considerable work on the home farms, many performing jobs which they had not done prior to the war. On 29 percent of the farms, for example, they milked, and on almost as many they cared for livestock, neither of which activities was commonly done by native-born Vermont women prior to the labor shortage. Caring for the milking equipment was the farm work most often done by women and girls (generally the homemaker), and they did this in about half of the

¹⁰ Gathering of vegetables is classed elsewhere.

Table 7. Numbers of Farms on Which Women and Girls of the Family Did Various Types of Farm Work

Type of farm work	Homemaker and/or other(s)	Home- maker	Other women and girls of family				
			All others	8*-12 years	13-17 years	18-24 years	25 years and up†
Accounts and business	27	27	0	0	0	0	0
Gardening and fruits (for sale)	16	10	7	2	4	1	3
Haying or field work	72	47	32	11	14	6	7
Livestock care	47	33	16	7	8	2	1
Milking	53	36	22	6	10	4	4
Milking equipment care.....	90	85	8	1	4	0	4
Poultry and eggs (for sale or use)	72	63	10	2	3	3	2
Trips, transportation	8	8	0	0	0	0	0
Miscellaneous farm work.....	21	16	7	1	3	3	0
Any farm work or business — — —	150	140	46	15	22	11	10

* Two 8-year-old girls helped with farm work. No younger girls did such work.

† Only one woman past 60 did farm work. She was 74 years old.

cases (Table 7). Caring for poultry and haying or other field work were each done by women and girls on 39 percent of the farms. Poultry was cared for more frequently by the homemaker than by other women. Haying or field work, on the other hand, was done by the housewife and by other women and girls of all age groups.

On half of the farms on which the time spent by women and girls on farm work amounted to 10 hours or more, this time was said to be greater than it had been before the war. In 61 cases, or 41 percent of those in which the women and girls did any farm work, they were doing more of it at the time of the interviews than they had previously done.

There were 33 families in which no woman or girl did any farm work. In each of four of these cases the housewife and the one other woman or girl were very busy with the homemaking activities because the household was large and included young children. In another four of these cases there were no girls and the women other than the homemakers were either elderly or had full-time employment away from home. There was no woman except the homemaker and no girl 8 years or more of age on 25 of the farms. In nine of these last cases, the homemakers did not need to do farm work because there were enough men to do it. In another 14 of them there were young children needing the homemakers' care. In the remaining two cases the homemakers were physically unable to do farm work.

The amounts of time which the farms received during the week from women and girls ranged from only a quarter of an hour to

about a hundred hours. The time spent on farm work by all women and girls amounted to less than 5 hours during the week on each of almost a fourth of the farms. For almost another fourth, this time fell between 5 and $9\frac{3}{4}$ hours. For slightly more than a quarter of them it ranged from 10 to $34\frac{3}{4}$ hours. In only the remaining fourth of the cases did the farm work of women and girls equal 35 or more hours during the week (Table 8).

Homemakers—The housewives contributed 67 percent of all the time devoted to farm work by women and girls. More than three-fourths of the housewives (or 140 of them) did some farm work. However, more than half of these 140 spent less than 10 hours in this way during the week, and only a few of them devoted 35 or more hours to farm work (Table 8).

Table 8. Numbers of Farms on Which Women and Girls of the Family Spent Varying Amounts of Time on Farm Work

Range in hours	Homemaker and/or other(s)		Homemaker		Other* than homemaker	
	Number	Percent	Number	Percent	Number	Percent
0	33	18	43	24	137†	75
$\frac{1}{4}$ - $4\frac{3}{4}$	35	19	39	21	7	4
5 - $9\frac{3}{4}$	32	18	39	21	10	5
10 - $14\frac{3}{4}$	13	7	13	7	8	4
15 - $19\frac{3}{4}$	13	7	11	6	4	2
20 - $24\frac{3}{4}$	15	8	16	9	1	1
25 - $29\frac{3}{4}$	6	3	8	4	1	1
30 - $34\frac{3}{4}$	8	4	3	2	1	1
35 - $39\frac{3}{4}$	8	4	6	3	5	3
40 - $44\frac{3}{4}$	5	3	2	1	4	2
45 - $49\frac{3}{4}$	7	4	2	1	4	2
50 - $54\frac{3}{4}$	4	2	1	1	0	0
55 - $99\frac{3}{4}$	4	2	0	0	1	1

* Includes women other than the homemaker and girls 8 years or more of age.

† In 87 families there was no girl 8 years or more of age or woman other than the homemaker, while 96 families included one or more such persons. In 50 of the latter cases these women or girls did no farm work.

The 43 homemakers who did no farm work during the week preceding the interview had households averaging 5.7 persons. Nineteen of them had from one to five children under 8 years of age. In only 5 of these 19 cases did the family include a girl who was at least 8 years of age or a woman other than the homemaker who did not have full-time employment away from home. In another 6 of these 19 cases there was a hired houseworker, in 3 cases for the week and in the other 3 for a day. The 43 housewives who did no farm work spent an average of $71\frac{3}{4}$ hours on homemaking activities and other persons spent an additional $22\frac{1}{4}$ hours in those homes.

Contrasted with these housewives doing no farm work were the 11 who did 35 or more hours of it during the week. Only one of the latter group had a young child. The 11 households of this group averaged four persons. The time spent on homemaking activities in these cases averaged 43 hours for the housewife and 14½ hours for all other persons.

It is not true, as these findings seem to indicate, that farm work was done by the homemakers without young children and not done by those with such children. Actually, some farm work was done by 74 percent of the homemakers who had from one to five children under 8 years of age and by 78 percent of those having no young child. Except for two cases, each homemaker who did farm work had someone to care for her children while she was out on the farm. The only farm jobs done by the remaining two were ones on which they could have their children with them.

Girls and Women Other Than the Homemaker—There was at least one girl 8 years or more of age, or a woman other than the homemaker in 96 families. In only 46 cases did those persons spend any time on farm work and for most of those 46 families this time expenditure was small. In only 14 cases did the time spent on farm work by all girls and women other than the homemaker amount to 35 hours or more. On another 15 farms this time expenditure ranged from 10 to 34¾ hours and on 17 farms it amounted to less than 10 hours for the week. This time expenditure amounted to an average of 14½ hours for the week for each individual girl or woman other than the homemaker who did farm work.

Only 64 girls or women other than the homemaker in the families studied did any farm work whatsoever. This was less than half of them, as there was a total of 148 in the 183 families. Farm work was done by a higher proportion of those from 25 to 59 years of age than by members of any other age group and by almost as high a proportion of those from 13 to 17 years, inclusive.

Both house and farm work were done by 40 percent of the girls and women other than the homemakers (Table 9). An additional 45 percent of them engaged in homemaking activities, while 3 percent did only farm work. The ages of those who did only farm work ranged from 13 to 18 years and each of them was in a family which included from two to five women in addition to the homemaker. There were 18 girls and women other than the homemaker (or 12 percent of the total number) who worked neither in the house nor on the farm. Six of these 18 were young women who were away from home during the day¹¹ on full-time jobs or in summer school;

¹¹ They lived at home without paying for room or board.

Table 9. Numbers and Percentages of Women and Girls of the Family Doing Home and Farm Work and the Average Hours So Spent During the Week by These Persons

Note: Including only those 8 years or more of age sleeping in the home 3 or more nights or having 10 or more meals there during the week.

Type of work	Home-maker	Other women and girls of the family by age levels*					
		All	8-12	13-17	18-24	25-59	60-89
<i>Number of individuals</i>							
Home and farm	140	60	17	23†	10	9	1
Home	43	66	22	16	12‡	6	10
Farm	0	4	0	3	1	0	0
Neither	0	18	4	6§	6||	1¶	1
Total — — —	183	148	43	48	29	16	12
<i>Percentage of individuals</i>							
Home and farm	77	40	40	48	35	56	8
Home	23	45	51	33	41	38	84
Farm	0	3	0	6	3	0	0
Neither	0	12	9	13	21	6	8
Total — — —	100	100	100	100	100	100	100
<i>Average hours for individuals doing such work</i>							
<i>Homemaking</i>							
When with farmwork	62½	14¾	11¾	13½	11¼	26¾	26½
When no farmwork	71¾	18¾	15¼	22	21¾	27¾	11½
All doing home-making — —	64½	16¾	13¾	17	17	27¼	13
<i>Farmwork</i>							
When with home-making	13¼	15	11¼	17¼	18¾	13¼	10
When no homemaking	14½	.....	.....	6	8	.....	.....
All doing farm work — — —	13¼	14½	11¼	16	17¾	13¼	10

* Does not include 5 girls between 5 and 8 years of age (in 4 families) each of whom spent 1 hour on homemaking activities. No girl under 8 years of age was reported doing any farm task.

† Includes 1 in school.

‡ Includes 3 employed full-time away from home.

§ Includes 1 employed full-time away from home, 2 ill.

|| Includes 3 employed full-time away from home, 1 ill, 2 in school.

¶ Includes 1 employed full-time away from home.

four were girls under 12 years of age; six were girls 13 to 17 years of age, of whom one was employed away from home and at least two were physically unable to do any work during the time covered by the interviews; one was a 21-year-old invalid; and the remaining one was a woman who was over 80 years of age.

Relation of Farm Work to Homemaking Time

There were 61 homemakers who said that more time was being spent on farm work than was so spent before the war either by themselves, by girls or other women in the family, or by both. When,

however, these same 61 housewives were asked whether more, less, or about the same time was being spent on homemaking activities as in previous years, only 21 of them said that less time was being so spent. Only 13 gave additional farm work on the part of women and girls as the reason for lower time expenditures in the home.

However, the time spent during the week on homemaking activities *by all persons* averaged 91 hours for the 33 families in which no woman or girl did any farm work, and 82½ for all of the 183 families. The housewives doing no farm work averaged 9½ hours more on homemaking activities than did those doing farm work (Table 9).

PARTICIPANTS IN HOMEMAKING ACTIVITIES AND THEIR TIME EXPENDITURES

The Persons Who Contributed Homemaking Time

As the total hours of homemaking time rose, both the hours spent by the housewife and those spent by other persons tended to rise. They did not, however, remain in the same ratio, other persons contributing a greater proportion of the homemaking time as the total time expenditure increased (Fig. 3). The small number of cases is, of course, the cause of some of the irregularities in these tendencies.

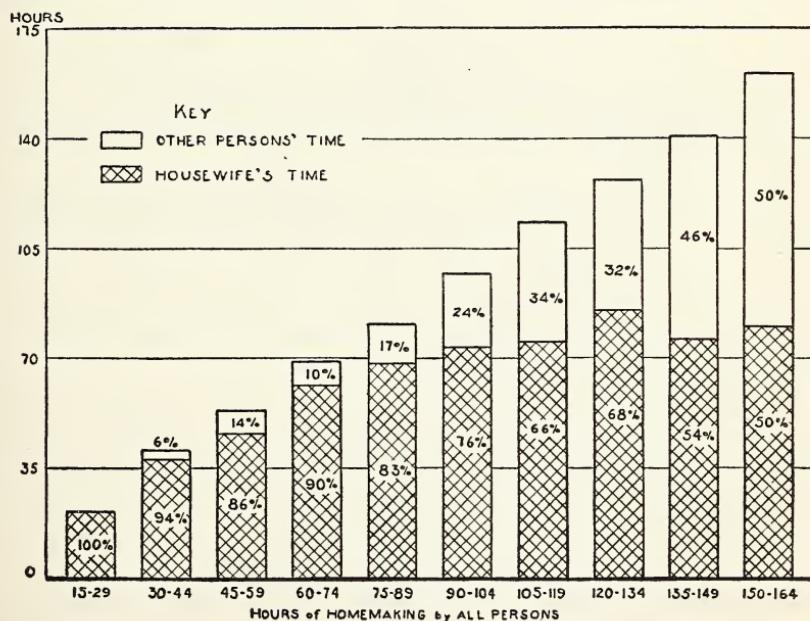


Fig. 3. Amounts and percentages of homemaking time contributed by the housewife and by other persons for 10 ranges of total homemaking time.

The housewives contributed 78 percent of the time devoted to homemaking in the 183 homes. Other women of the family (18 or more years of age) gave 6 percent, girls under 18 gave 8 percent, hired houseworkers 4 percent, female guests or boarders 1 percent, farm operators 1 percent, and other men and boys 2 percent. Some time (any amount from 8 minutes to 71 hours for the week) was given to homemaking activities by 1, 2, 3, 4, and 5 other persons in 37, 29, 13, 7, and 1 percent of the homes, respectively.

In each of 24 (13 percent) of the homes no one other than the housewife spent as much as 8 minutes on homemaking tasks during the week. In only a single family among these 24 was there another woman or a girl 8 years or more of age who was in the home for at least 3 days of the week preceding the day of the interview. In the exceptional case, the one such woman had full-time employment in the city.

One person other than the housewife spent some time on homemaking activities in each of 68 homes. This person was a woman or girl of the family in 28 cases, a hired woman in 9, a female guest or boarder in 5, and a man or boy in 26 cases. The one man doing such work was the farm operator in 18 homes. In each of 4 of these cases the operator's homemaking time was less than 1 hour, in 10 it was less than 2 hours, in 14 it was less than 3 hours, and in 17 cases it was less than 5 hours. The eighteenth operator spent $5\frac{1}{4}$ hours on dishwashing during the week in a household consisting of himself, his wife, and two young children. A boy or man other than the farm operator was the sole helper in each of eight homes. None of these eight spent more than 6 hours on homemaking activities during the week.

One of the 26 families in which a man or boy was the only helper included an 89-year-old woman, and another had a young woman 18 years of age in school. There were no girls 8 years or over or women other than the homemaker in the remaining 24 of these homes. Neither were there any such persons in the eight homes where two men or boys were the homemakers' only helpers.

Of the girls (8 years or more of age) and the women other than the homemaker who were at home for at least 3 days during the week, 85 percent devoted some time to homemaking (Table 9). The proportions of them in the several age levels who contributed homemaking time ranged from 76 percent for the 18- to 24-year-old women to 94 percent for those from 25 to 59 years.

A fourth of these women who were 18 to 24 years old spent less than 5 hours on homemaking activities during the week (Table 10). In this connection, it should be noted that 31 percent of the women

Table 10. Numbers of Homes in Which Persons of Several Age, Sex, and Status Groups Spent Varying Numbers of Hours on Homemaking Activities

Note: Including only persons sleeping in the home for 3 or more nights or having 10 or more meals there during the week, except for hired houseworkers, of whom all are included. Figures are numbers of homes, regardless of number of persons in a class in any given home.

Age, sex, and status group	Homes having such person(s)	Hours spent on homemaking during the week				35 or more
		Any number	1/4 to 4 3/4	5 to 9 3/4	10 to 34 3/4	
Women and girls						
Homemaker	183	183	0	0	8	175
Others in family	122	94	13	11	53	17
Under 8 years	50	4	4	0	0	0
8-12 years	36	33	3	8	20	2
13-17 years	36*	32	3	3	23	3
18-24 years	28†	22	7	6	5	4
25-59 years	14‡	13	1	1	6	5
60-89 years	12	11	4	0	7	0
Hired houseworkers	26	26	4	5	8	9
Guests and roomers	26	11	5	3	2	1
Men and boys						
Farm operator	183	65	57	6	2	0
Others in family	124	32	25	5	2	0
Under 8 years	50	8	7	1	0	0
8-12 years	35	9	8	0	1	0
13-17 years	37	7	6	1	0	0
18-24 years	29	9	7	1	1	0
25-59 years	18	3	1	2	0	0
60-89 years	12	0	0	0	0	0
Hired farm workers	79	7	6	1	0	0
Guests and roomers	27	4	4	0	0	0

* Includes 2 families whose only girl in this age group was either employed or a student (doing some homemaking in 1 case) and 1 whose only girl was ill throughout the week.

† Includes 9 families in each of which there was only 1 woman in this age group. These women were employed or in school in 8 cases (doing some homemaking in 3 cases) and the other was a chronic invalid.

‡ Includes 1 family with an employed woman (only one in this age group in her family) who did no homemaking.

18 to 24 years of age were either employed away from home, were in school, or were ill. There were several women with full-time jobs away from home who did some housework. The majority of the girls from 8 to 17 years of age and of the women (other than the homemakers) who were 60 or more years of age spent between 10 and 34 3/4 hours on homemaking tasks. A third of those who were from 25 to 59 years of age spent 35 or more hours on such tasks.

There was a hired house worker in each of 26 cases. Thirteen of them lived in the homes where they worked, one lived out and worked 7 full days, and the others went in for periods varying from 2 hours to more than 10 hours on 1 to 6 days during the week.

Table 11. Numbers of Homes in Which Persons of Several Age, Sex, and Status Groups Participated in Seven* Classes of Homemaking Activities

Note: Including only persons sleeping in the home for 3 or more nights or having 10 or more meals there during the week, except for hired houseworkers of whom all are included. Figures are numbers of homes, regardless of number of persons in a class in any given home.

Age, sex, and status group	Homes where activities occurred	116	181	183	183	122	183	145	Marketing, household accounts
Women and girls									
Homemaker		115	180	170	183	120	183	125	
Others in family		25	57	73	68	38	81	12	
Under 8 years		0	0	0	2	2	1	0	
8-12 years		15	13	25	18	11	28	3	
13-17 years		6	21	29	24	12	31	1	
18-24 years		4	17	13	11	8	16	2	
25-59 years		2	10	11	11	8	12	4	
60-89 years		1	4	6	6	5	6	2	
Hired houseworkers		8	15	21	17	9	24	0	
Guests and roomers		3	2	7	2	3	6	0	
Men and boys									
Operator		2	2	7	8	9	30	31	
Others in family		0	0	7	6	5	25	4	
Under 8 years		0	0	2	0	2	4	0	
8-12 years		0	0	3	2	1	6	0	
13-17 years		0	0	1	0	2	5	1	
18-24 years		0	0	3	3	1	7	2	
25-59 years		0	0	0	1	0	3	1	
Hired farm workers		0	0	1	0	2	4	0	
Guests and roomers		0	1	0	0	1	2	0	

* The 8th class, "family activities," is omitted from this table because of incomplete reports of participation in it by persons other than the homemaker.

The time spent by these hired houseworkers ranged from 3 to 71 hours for the week and averaged 25½ hours.

Types of Homemaking Tasks Done by Various Persons

House cleaning was done by 24 of the 26 hired women; dishwashing by 21; food preparation by 17; washing, ironing, or both by 15; and child care by 8 of them (Table 11). The hired workers did no marketing and neither did the female guests or roomers who helped with other classes of activities.

More than a third of all the farm operators spent some (generally very little) time on homemaking. Almost one-fifth of the operators did some household buying, generally of food. About an equal proportion of them carried water, built fires, or filled lamps and stove tanks. These four last-named tasks were the ones most often done by the few other men and boys who contributed homemaking time.

The five little girls of less than 8 years who shared in homemaking helped with care of the house and with preparation of vegetables or fruits for meals or for preservation. The girls who were from 8 to 12 years old helped with house cleaning and with dishwashing more often than with other tasks. However, from a third to a half of them helped with food preparation, child care, and care of their own clothing. A few of them helped to get fruits and vegetables ready for preservation and three of them did some marketing. The 13- to 17-year-old girls most frequently did house cleaning, bedmaking, dishwashing, food preparation, and clothing care. Women 18 to 24 years of age most often did clothing care, house cleaning, dishwashing, and food preparation. The women from 25 to 59 and those 60 or over seldom cared for children or did marketing, but they engaged in activities of the other classes.

Time was reported to have been spent on child care in 84 homes. There were children under 2 years of age in 31 homes, children from 2 to 7 years in 64 homes, and children from 8 to 17 years of age in 117 homes. In each of 46 cases only the homemaker cared for the children, in each of 32 she had the help of one or more persons, while in 6 homes other persons did all child care (Table 12). Or stated differently, the housewives performed all the child care in more than half of the homes where this activity occurred. They did it with the help of others in more than a third of such homes, while other persons were responsible for all child care in a few homes. Invalid care, which occurred in 31 homes, was done almost entirely by the housewives. The field agents failed to record the time spent by persons other than the homemakers in helping adult household members other than invalids.

Table 12. Numbers and Percentages of Homes Where the Housewife Alone, the Housewife and Other Persons, and Other Persons Only Participated in 8 Classes and 30 Subclasses of Homemaking Activities

Note: The numbers of cases for the eight classes are *not* the totals of the subclasses because the activities of a specific class in any given home may include activities of one, several, or all of its subclasses. The number of homes where activities of each class or subclass occurred equals 100 percent.

Class and subclass of homemaking activities	Homes where the activities occurred	Homes where participants were					
		Housewife only	Housewife and others	Others only	Housewife only	Housewife and others	Others only
		Number			Percent.		
Care and help of household members		116	77	38	1	66	33
Child care		84	46	32	6	55	38
Helping adults*		56	56	—	—	100	—
Invalid care		31	30	1	0	97	3
Clothing and household linens	181	103	77	1	57	42	1
Dry cleaning		4	2	0	2	50	0
Ironing		159	103	42	14	65	26
Mending		132	115	9	8	87	7
Pressing		27	21	1	5	78	4
Sewing		54	47	2	5	87	4
Washing		170	125	38	7	74	22
Dishwashing	183	70	100	13	38	55	7
Breakfast dishes		182	90	58	34	49	32
Dinner dishes		183	84	78	21	46	43
Supper dishes		178	82	75	21	46	42
Additional meals—dishes		11	4	0	7	36	0
Family activities*	153	153	—	—	100	—	—
Food preparation and care	183	86	97	0	47	53	0
Breakfast		183	144	32	7	79	17
Dinner		183	107	74	2	59	40
Supper		183	118	57	8	65	31
Additional meals		29	22	3	4	76	10
Baby's food		19	15	1	3	79	5
Baking		164	146	15	3	89	9
Lunch boxes		37	31	3	3	84	8
Other food preparations		38	33	1	4	87	3
Food care		146	131	11	4	90	7
Food preservation	122	60	60	2	49	49	2
House cleaning, care, and upkeep	183	56	127	0	31	69	0
Daily cleaning		182	117	55	10	64	30
Weekly cleaning		173	127	33	13	73	19
Special cleaning		87	65	11	11	74	13
Upkeep		22	18	1	3	82	4
Bedmaking		180	85	70	25	47	39
Fire building and care		132	90	29	13	68	22
Lamp cleaning and care		21	16	1	4	76	5
Water carrying		57	28	10	19	49	18
Marketing and household business	145	101	24	20	70	16	14
ALL HOMEMAKING ACTIVITIES	183	24	159	0	13	87	0

* Includes only the housewives because of incomplete reports on other persons performing these activities.

The homemakers did the sewing, mending, ironing, pressing, and washing without help in most of the homes in which these activities occurred during the week of the investigation. They did all dishwashing in more than a third of the homes, did it with the help of other persons in more than half of the cases, while in a few of the homes they were entirely relieved of this job. Persons other than the homemaker did the dinner dishes in 11 percent of the homes, the supper dishes in 12 percent, and the breakfast dishes in 19 percent of the cases.

More than half of the homemakers had the help of other persons in food preparation. In no home were other persons entirely responsible for all of the food preparation, although they were responsible for getting breakfast in 4 percent and for getting supper in 4 percent of the cases. Most other food preparation, such as baking, was done by the housewives in the majority of the homes. They did all food preservation in almost half of the cases, other persons helped with it in an equal number of cases, and other persons did all food preservation in two homes.

The housewives did the daily, weekly, and special cleaning, and the upkeep of their houses with no help from anyone in the majority of the cases in which each of these tasks was done. They had at least some help on daily cleaning in 30 percent and on weekly cleaning in 19 percent of the homes where these jobs were done. They were relieved entirely of daily cleaning in 6 percent and of weekly cleaning in 8 percent of the homes. Other persons did all bedmaking in 14 percent and some of it in 39 percent of the homes.

Men and boys often built fires and carried wood but the housewives, of course, had to keep the fires going. They did all the carrying of water in 49 percent and some of it in another 18 percent of the cases where it occurred. They did all household buying and business for 70 percent of the families reporting its occurrence during the week preceding the interview and part of it for another 16 percent of the cases.

TIME EXPENDITURES ON VARIOUS HOMEMAKING ACTIVITIES

Consideration of the time spent by all persons on eight classes of homemaking activities showed that food preparation and care consumed the most time, or 25 percent of the total (Table 13, Fig. 4). Almost as much time (22 percent) went to house cleaning, care, and upkeep, while dishwashing accounted for 15 percent. Care and help of household members received 10 percent, clothing and household linens 9 percent, food preservation 6 percent, and marketing and household business 3 percent of the total time.

Table 13. Allocation Among Eight Classes of Activities of the Time Spent on Homemaking Activities During the Week by the Housewife and by Other Persons

Note: Averages are for 183 homes, regardless of the number of homes in which the activities of each class occurred and regardless of type and number of participants.

Class of homemaking activity	All persons	Housewife		Other persons			
		H	o	u	r	s	
Care and help of household members	8 1/4		6 1/2			1 3/4	
Clothing and household linens	7 1/2		6			1 1/2	
Dishwashing	12 1/2		7 1/2			5	
Family activities*	8		8			....
Food preparation and care	21		17 3/4			3 1/4	
Food preservation	4 3/4		3 1/2			1 1/4	
House cleaning, care, and upkeep	17 3/4		13 1/4			4 1/2	
Marketing and household business	2 1/2		2			1/2	
All homemaking activities — — — —	82 1/4		64 1/2			17 3/4	
Percent of homemaking time							
Care and help of household members	10		10			10	
Clothing and household linens	9		9			9	
Dishwashing	15		12			28	
Family activities*	10		12			....
Food preparation and care	25		28			18	
Food preservation	6		5			7	
House cleaning, care, and upkeep	22		21			25	
Marketing and household business	3		3			3	
All homemaking activities — — — —	100		100			100	
Percent of class time							
Care and help of household members	100		79			21	
Clothing and household linens	100		80			20	
Dishwashing	100		60			40	
Family activities*	100		100			....
Food preparation and care	100		85			15	
Food preservation	100		74			26	
House cleaning, care, and upkeep	100		75			25	
Marketing and household business	100		80			20	
All homemaking activities — — — —	100		78			22	

* Includes only the housewife's time.

The time spent on family activities by the homemaker alone amounted to 10 percent of the homemaking time of all persons. Time spent on such activities by persons other than the housewife is excluded from the reported findings. The time for family activities includes only time spent solely or chiefly on them. The homemakers probably contributed to such activities while their hands were busy with housekeeping tasks to which they credited the full time, although it should have been considered as "overlapping time." The amount of time reported as spent on family activities by the homemakers was, therefore, short to the extent that these activities were combined with housekeeping jobs to which the full time expenditure was credited. This was, no doubt, true also for some time spent by the homemakers and by other persons on care and help of household members,

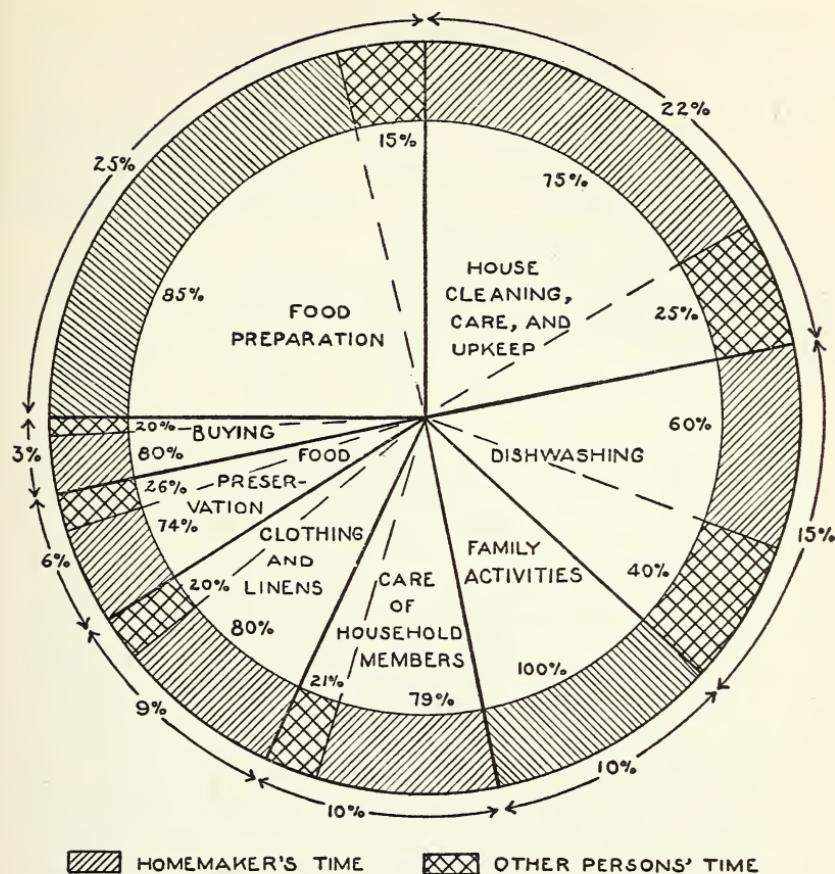


Fig. 4. The distribution of homemaking time among eight classes of activities and the allocation between the homemaker and other persons of the time spent on each class of activities.

especially on amusing the children, telling them stories, directing their play, and teaching or training them.

Warren¹² has reported on expenditure of time in 497 Genesee County, New York, farm homes during a week in the spring of 1936. She did not include under homemaking a class of family activities, and she limited care of household members chiefly to physical care. Otherwise, the two classifications seem to agree quite closely. Time spent by all persons on homemaking (exclusive of family activities) averaged $74\frac{1}{4}$ hours for the week on the Vermont farms, as compared to $63\frac{1}{2}$ hours on the New York ones. On this same basis, the housewives averaged 76 percent of the total time spent and other persons 24 percent in the Vermont homes, as compared to 82 and 18

¹² New York (Cornell) Sta. Bul. 734, pp. 23-24.

percents in the New York ones. Percentages of total homemaking time devoted to the several classes of homemaking activities in the farm homes studied in the two states were as follows:

Class of homemaking activity	Percentage of homemaking time ¹⁸ spent by all persons	
	New York (497 farm homes)	Vermont (183 farm homes)
Food preparation	30	28
House cleaning, care, upkeep	33	24
Dishwashing	16	17
Care of household members	6	11
Clothing and household linens	13	10
Food preservation	0	6½
Marketing, accounts, etc.	2	3½
	100	100

Considering all eight classes of homemaking activities reported in the present study, the Vermont housewife spent 28 percent of her homemaking time on food preparation, which was 85 percent of the total time spent on this work (Table 13). Other persons gave only 18 percent of their homemaking time to food preparation. The housewife did three-fourths of the house cleaning, care, and upkeep. This activity consumed 21 percent of her time and 25 percent of the time of other persons. Although the housewife supplied 60 percent of the dishwashing time, this work took only 12 percent of her homemaking time and 28 percent of that of other persons. Ten percent of the homemaking time of the housewife and 10 percent of that of other persons was spent on the care and help of household members, although the housewife contributed 79 percent of the total time spent on this class of activity.

Breaking down the time expenditures for five of the eight classes of homemaking activities into 30 subclasses helps to clarify time allocation in the homes. For example, child care received the major portion of the time devoted to the care and help of household members. Some child care was reported to have occurred in 84 of the homes (Table 12). In those homes, it consumed an average of 14½ hours, of which 10½ were contributed by the housewife (Table 14). The homemaker did all the child care in 46 of these homes and part of it in 32 of them, spending in the 78 cases an average of 11½ hours (Table 15). Other persons did all child care in 6 homes and some of it in 32 homes, averaging 4¾ and 9½ hours during the week in those cases.

In the average home no dry cleaning or pressing was done during the summer week considered and little mending and sewing were

¹⁸ Exclusive of time spent on family activities.

Table 14. Average Hours Spent on 8 Classes and 30 Subclasses of Homemaking Activities in All Homes and in Homes Where the Activities Occurred

Note: Entries in the first three columns are averages for all homes, regardless of the number of homes in which specific activities occurred and regardless of type and number of participants in the activities. Each figure in the last three columns is an average for the number of homes (Table 12, first column) in which activities of the class or subclass occurred, regardless of the type and number of participants. In these last three columns, therefore, the averages for the classes are not totals of those for the subclasses.

Class and subclass of homemaking activity	Average for 183 homes			Average for homes where the activity occurred		
	Total	House-wife	Others	Total	House-wife	Others
Care and help of household members — — — —	8½	6½	1¾	13¼	10½	3
Child care	6½	4¾	1¾	14½	10½	4
Helping adults*	1	1	—	3¼	3¼	—
Invalid care	¾	¾	0	4¼	4	¼
Clothing and household linens —	7½	6	1½	7¾	6½	1½
Dry cleaning	0	0	0	½	¼	¼
Ironing	2¼	1½	¾	2¾	2	¾
Mending	1	1	0	1¼	1¼	0
Pressing	0	0	0	¾	½	¼
Sewing	1¼	1	¼	3¾	3¼	½
Washing	3	2½	½	3¼	2¾	½
Dishwashing — — — —	12½	7½	5	12½	7½	5
Breakfast dishes	3¾	2½	1½	3¾	2¼	1½
Dinner dishes	5	3	2	5	3	2
Supper dishes	3¾	2½	1½	3¾	2½	1½
Additional meals—dishes	0	0	0	1¼	½	1¼
Family activities* — — — —	8	8	—	9¼	9¼	—
Food preparation and care — —	21	17¾	3¼	21	17¾	3¼
Breakfast	3½	3	½	3½	3	½
Dinner	8¾	7½	1½	8¾	7½	1½
Supper	5	4	1	5	4	1
Additional meals	¼	¼	0	2	1½	½
Baby's food	½	½	0	4½	3½	1
Baking	2	1¾	¼	2½	2¼	¼
Lunch boxes	¼	¼	0	1¼	1	¼
Other food preparation	¼	¼	0	1	¾	¼
Food care	½	½	0	¾	¾	0
Food preservation — — — —	4¾	3½	1¼	7	5½	1¾
House cleaning, care, and upkeep 17¾	13¼	4½	—	17¾	13½	4½
Daily cleaning	6½	5¼	1¼	6½	5¼	1¼
Weekly cleaning	3¾	2¾	1	4	3	1
Special cleaning	1¼	¾	½	2½	1¾	¾
Upkeep	½	½	0	4	3	1
Bedmaking	3	1¾	1¼	3½	2	1¼
Fire building and care	2	1¾	½	2¾	2¼	½
Lamp cleaning and care	0	0	0	1	¾	¼
Water carrying	¾	½	¼	2¾	1½	1¼
Marketing and household business 2½	2	½	—	3	2½	½
ALL HOMEMAKING ACTIVITIES — — — —	82½	64½	17¾	82½	64½	17¾

* Includes only the housewife's time.

Table 15. Hours Spent by the Housewife and by Other Persons on 8 Classes and 30 Subclasses of Homemaking Activities

Note: Entries in the first three columns are averages for housewives as well as for homes because there is only one housewife in each home. Entries in the last three columns are averages for the homes and not for individual persons because one, two, or several persons other than the housewife participated in some activities in some homes.

Class and subclass of home-making activities	Housewife's average hours in homes where she participated			Others' average hours in homes where they participated		
	Alone or with others	Alone	With others	With or without housewife	Without housewife	With housewife
Care and help of household members — — —	10½	8¾	14	8½	6	8½
Child care	11½	10½	13	8½	4¾	9½
Helping adults*	3¾	3¾	...	...	...	...
Invalid care	4	4	7½	7	0	7
Clothing and household linens — — —	6¼	6	6½	3½	6½	3½
Dry cleaning	¼	¼	0	¾	¾	0
Ironing	2	2½	1¾	2¼	3¼	1¾
Mending	1¼	1¼	1	1	¾	1
Pressing	½	½	½	1¾	1¾	1
Sewing	3½	3¾	1½	3¼	3	3½
Washing	3	2¾	3¼	2¼	3	2
Dishwashing — — —	8¼	9	7½	8	13¾	7¼
Breakfast dishes	2¾	2¾	2½	3	4	2½
Dinner dishes	3½	3¾	3¼	3½	5	3
Supper dishes	2½	2¾	2½	2¾	4¼	2½
Additional meals—dishes	1	1	0	2	2	0
Family activities* — —	9¼	9½	...	...	...	...
Food preparation and care 17¾	18½	17¼	6¼	0	6¼	
Breakfast	¾	¾	¾	2½	4½	2
Dinner	7	7¾	7	3¼	10½	3
Supper	4	4¼	3¾	2½	4	2½
Additional meals	1¾	1¾	¾	2	2¾	1¼
Baby's food	4	4	3	4½	4¾	3½
Baking	2¼	2¼	2¼	1¾	1½	1¾
Lunch boxes	1	1¼	¾	¾	1	¾
Other food preparation	1	1	1½	1¾	2¼	½
Food care	¾	¾	½	½	1	½
Food preservation — —	5¼	4½	6¼	3¾	2	3¾
House cleaning, care, and upkeep — — —	13¼	14	12¾	6½	0	6½
Daily cleaning	5½	5¾	5¼	3¾	6¼	3¼
Weekly cleaning	3¾	3¾	3	4	5¾	3¼
Special cleaning	2	2	3	2½	2¼	2¾
Upkeep	3½	3¾	1	5	6¼	1
Bedmaking	2¼	2¼	2¼	2¾	3	2
Fire building	2½	2½	2¾	1½	1	1¾
Lamp cleaning	¾	1	¾	½	¾	¼
Water carrying	2¼	2¼	2¼	2¼	2	2¾
Marketing and household business — — —	3	3	2¾	1¾	16¼	1¾
ALL HOMEMAKING ACTIVITIES — —	64½	64½	64½	20½	0	20½

* Includes only the housewife's time.

done. Washing accounted for 3 and ironing for $2\frac{1}{4}$ of the $7\frac{1}{2}$ hours spent on clothing and household linens. Here again the housewife contributed the major portion of the time. When other persons did any washing they spent 2 or 3 hours on it, but they did so in less than a fourth of the homes. In most cases the housewife carried the water necessary for the washing, as well as performing the rest of the job. Other persons contributed a minor share of the time spent on ironing in the average home, but in the homes in which they helped with the ironing they spent about as much time on it as did the housewives.

The preparation of the three daily meals took $17\frac{1}{4}$ hours during the week in the average home. In 29 homes one or more individuals either had a meal at a different time than that at which others ate or else had a supplementary meal. Time on these additional meals averaged 2 hours during the week in the homes where they were served, and was contributed chiefly by the housewife. Hers also was most of the time which went into the preparation of baby's food, lunch boxes, and baking.

An average of $6\frac{1}{2}$ hours, or 37 percent of the total time going to house care, cleaning, and upkeep in the 183 homes, went to daily cleaning, $3\frac{3}{4}$ hours (21 percent) to weekly cleaning, and $1\frac{1}{4}$ hours (7 percent) to special or periodic cleaning. Bedmaking consumed 3 hours and the building and keeping of fires averaged 2 hours for the 183 homes, although this latter activity was reported in only 132 of them. Filling and cleaning oil lamps in the 21 homes in which the activity occurred took an average of an hour a week at a season of the year in which lamps were little used. Time expenditure on water carrying during the week averaged $2\frac{3}{4}$ hours for the 57 homes in which it occurred and $\frac{3}{4}$ hour for each of the 183 homes. This time expenditure includes only that on carrying water into the house for all uses other than washing clothing and linens, this last being included as part of the washing job. It does not include carrying out waste water nor does it include carrying water within the house.

It is clear, therefore, that large portions of the total time were spent on a few activities. One-fourth of all homemaking time was spent on food preparation; nearly another quarter on house cleaning, care, and upkeep; and between one-sixth and one-seventh on dishwashing. These findings suggest that the first efforts at determining means of saving time in housework should be directed toward these three classes of homemaking activities.

HOMEMAKING TIME IN RELATION TO HOUSEHOLD COMPOSITION¹⁴

Relationships were found between the amount of time spent on homemaking activities and both the number of persons living in a household and the age of the youngest of those persons. The time spent on homemaking activities averaged 50 hours for the week for 2-person households and rose rather steadily to 119 $\frac{3}{4}$ for 9-person ones. For the households in which the youngest member was 18 years old or over, homemaking time for the week averaged 64 $\frac{3}{4}$ hours. The average hours were 78, 90 $\frac{1}{2}$, and 101, respectively, for the households in which the youngest person was from 8 to 17 years, from 2 to 7 years, and less than 2 years of age.

There was so much interrelationship between the numbers and the ages of individuals that these two factors jointly influenced each of the above ranges in homemaking hours. This is indicated to some extent by the fact that, while the 176 households with from 2 to 9 members averaged 5.3 persons, those having the youngest member 18 years or older, from 8 to 17 years, from 2 to 7 years, and less than 2 years old averaged 3.8, 5.3, 6.2, and 6.5 members, respectively. Also, the youngest member was an adult in 100 percent of the households with only 2 members, in 53 percent of those with 3 members, in 37 percent of those with 4 members, in 17 percent of those with 5 members, and in 15 percent of households with 6 members. In only 5 and 6 percent of the 7- and 8-person households, respectively, and in none of the 9-person ones, was the youngest member an adult. (For details of household composition see Appendix B, page 70.)

The total hours devoted to homemaking during the week for households of any given size tended to be lowest for those composed of adults only, highest for those having a child under 2 years of age, and somewhere between these two points when the youngest member was either from 2 to 7 years old or from 8 to 17 years old. More than half of the households had either 4, 5, or 6 members and for each of these sizes homemaking hours were practically the same when the youngest member was from 2 to 7 years as when the youngest member was from 8 to 17 years of age (Fig. 5). The apparent irregularities in the number of homemaking hours for the 3-person households in which the youngest member was from 2 to 7 years and for the 7-person households in which the youngest member was from 8 to 17 years were due, at least in part, to the small number of cases in these two groups. In the latter group of families it was also due to the small time expenditure of persons other than the housewife.

¹⁴ Only the 176 households having from 2 to 9 members are included in the discussion under this heading.

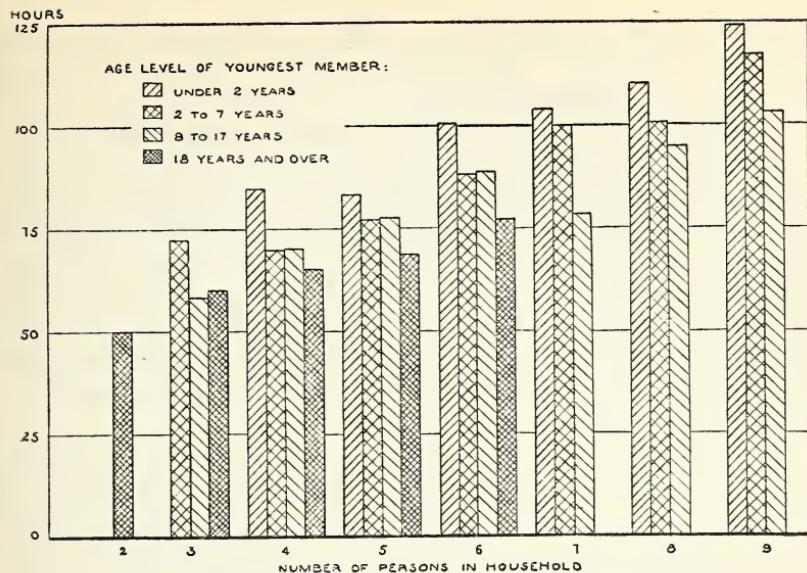


Fig. 5. Total homemaking hours in relation to the age level of the youngest member of households of various sizes.

There was considerable variation, of course, in the hours devoted to homemaking activities by the persons who were from 8 to 17 years of age. Girls of 17 years usually did more than did those of 8 years, for example, and girls generally did more than boys.

The homemaking hours tended to rise as the number of persons in the household increased, no matter what the age of the youngest household member was (Fig. 5). For example, the total expenditures of time on homemaking activities during the week were 50, 60, 65 1/2, 68 3/4, and 77 hours, respectively, in households of 2, 3, 4, 5, and

Table 16. Numbers and Percentages of Homemaking Hours Contributed During the Week by the Housewife and by Others in Households with from 2 to 9 Members

Number of household members	Homemaking time				
	All persons	Housewife	Other persons	Housewife	Other persons
<i>H o u r s</i>					
2	50	48 1/4	1 3/4	97	3
3	60 1/4	58 1/4	2 1/2	96	4
4	69 3/4	58	11 3/4	83	17
5	77	62 3/4	14 1/4	81	19
6	89 1/4	70 1/2	18 3/4	79	21
7	97	68	29	70	30
8	101	69	32	68	32
9	119 3/4	78 3/4	41	66	34
From 2 to 9	81 1/4	64	17 1/4	79	21

6 adults with no younger persons. When the youngest member was between 2 and 7 years of age homemaking time averaged $72\frac{1}{4}$ hours in 3-person households, fell slightly for the 4-person ones, and rose rather steadily to $117\frac{1}{4}$ hours for the 9-person households.

The hours spent by the housewife on homemaking activities tended to rise as the number of persons in the household increased. Her homemaking time ranged from $48\frac{1}{4}$ hours during the week in 2-member households to $78\frac{3}{4}$ hours in 9-member ones. As household size increased, there was, as would be expected, a much greater rise in the homemaking hours of all persons other than the housewife than there was in the housewife's hours. The homemaking time of other persons ranged from $1\frac{3}{4}$ hours in 2-member households to 41 hours in 9-member ones (Table 16).

The allocation of time among the eight classes of homemaking activities varied in relation to the composition of the household. As the number of persons in the household (regardless of their ages) increased, the time expenditure tended to rise for each class of activity except marketing and family activities (Table 17). The greatest increase occurred in the care and help of household members, for which the average time during the week was only $\frac{1}{4}$ hour in 2-person

Table 17. Numbers and Percentages of Homemaking Hours Devoted to Eight Classes of Activities in Households with from 2 to 9 Members

Class of homemaking activity	Number of persons in the household								
	From 2 to 9	2	3	4	5	6	7	8	9
Number of households	176	10	19	38	30	34	20	16	9
					<i>H</i>	<i>o</i>	<i>u</i>	<i>r</i>	<i>s</i>
Care and help of household members	$7\frac{3}{4}$	$\frac{1}{4}$	$1\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{4}$	$10\frac{1}{2}$	$13\frac{3}{4}$	$10\frac{1}{2}$	17
Clothing and household linens	$7\frac{1}{2}$	4	$5\frac{1}{4}$	$5\frac{1}{4}$	$6\frac{1}{2}$	$8\frac{1}{4}$	9	$12\frac{1}{4}$	12
Dishwashing	$12\frac{1}{2}$	$6\frac{3}{4}$	$8\frac{1}{2}$	$11\frac{3}{4}$	11	$12\frac{1}{4}$	$18\frac{1}{2}$	$14\frac{3}{4}$	$17\frac{3}{4}$
Family activities*	$7\frac{3}{4}$	$8\frac{1}{2}$	$7\frac{1}{2}$	$6\frac{3}{4}$	9	$8\frac{3}{4}$	$5\frac{3}{4}$	7	$8\frac{1}{4}$
Food preparation and care	$20\frac{3}{4}$	$14\frac{3}{4}$	$16\frac{3}{4}$	19	$19\frac{1}{2}$	$22\frac{1}{4}$	$24\frac{1}{4}$	$24\frac{1}{2}$	$27\frac{1}{4}$
Food preservation	$4\frac{3}{4}$	2	5	$3\frac{3}{4}$	$4\frac{1}{4}$	$5\frac{3}{4}$	$3\frac{1}{4}$	7	$9\frac{1}{2}$
House cleaning, care, and upkeep	$17\frac{3}{4}$	$12\frac{1}{4}$	$14\frac{1}{4}$	$15\frac{3}{4}$	$17\frac{1}{4}$	$18\frac{1}{4}$	$20\frac{1}{2}$	$22\frac{3}{4}$	$25\frac{1}{4}$
Marketing and household business	$2\frac{1}{2}$	$1\frac{1}{2}$	2	2	$2\frac{3}{4}$	$3\frac{1}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{4}$
All homemaking activities	$81\frac{1}{4}$	50	$60\frac{3}{4}$	$69\frac{3}{4}$	77	$89\frac{1}{4}$	97	101	$119\frac{3}{4}$
					<i>P</i>	<i>e</i>	<i>r</i>	<i>c</i>	<i>n</i>
Care and help of household members	10	1	2	8	8	12	14	10	14
Clothing and household linens	9	8	9	7	8	9	9	12	10
Dishwashing	15	13	14	17	14	14	19	15	15
Family activities*	10	17	12	10	12	10	6	7	7
Food preparation and care	25	29	28	27	25	25	25	24	23
Food preservation	6	4	8	5	6	6	3	7	8
House cleaning, care, and upkeep	22	25	24	23	23	20	22	23	21
Marketing and household business	3	3	3	3	4	4	2	2	2
All homemaking activities	100	100	100	100	100	100	100	100	100

* Includes only the housewife's time.

households and rose to 17 hours in 9-person ones. About three times as many hours were spent on dishwashing in 9-person households as in 2-person ones and about twice as much on food preparation and on house cleaning, care, and upkeep in the larger households as in the smaller ones. However, the percentage of the total homemaking time spent on dishwashing varied but slightly with household size, while the percentages for food preparation and for house cleaning, care, and upkeep fell slightly as household size increased. The share of the total homemaking time allocated to the care and help of household members rose from less than 1 percent to 14 percent as the number of persons increased from 2 to 9.

When the number of persons in the household was disregarded it was found that the time spent on care and help of household members increased from $\frac{1}{2}$ hour in homes in which the youngest member was an adult to $24\frac{1}{2}$ hours in households having a child under 2 years of age (Table 18). In the latter homes almost one-fourth of all homemaking time was spent on care and help of household members. The actual hours spent on food preparation rose slightly as the age of the youngest member decreased, but the percentage of total home-

Table 18. Numbers and Percentages of Homemaking Hours Devoted to Eight Classes of Activities in Households Grouped According to the Age Level of the Youngest Member

Class of homemaking activity	All	Age level of the youngest member of the household				
		Under 2 years	2 to 7 years	8 to 17 years	18 years and over	
Number of households	176	28	42	60	46	
		<i>H</i>	<i>o</i>	<i>u</i>	<i>r</i>	<i>s</i>
Care and help of household members	$7\frac{3}{4}$	$24\frac{1}{2}$	$12\frac{1}{4}$	$2\frac{3}{4}$		$\frac{1}{2}$
Clothing and household linens	$7\frac{1}{2}$	9	$7\frac{1}{2}$	$7\frac{1}{2}$		$6\frac{1}{2}$
Dishwashing	$12\frac{1}{2}$	$12\frac{1}{2}$	15	$12\frac{1}{2}$		$10\frac{1}{4}$
Family activities*	$7\frac{3}{4}$	$5\frac{3}{4}$	$8\frac{3}{4}$	$7\frac{3}{4}$		$7\frac{3}{4}$
Food preparation and care	$20\frac{3}{4}$	22	$21\frac{1}{4}$	$20\frac{3}{4}$		$18\frac{3}{4}$
Food preservation	$4\frac{3}{4}$	$6\frac{1}{4}$	$5\frac{1}{4}$	$5\frac{1}{4}$		3
House cleaning, care, and upkeep	$17\frac{3}{4}$	$18\frac{3}{4}$	$17\frac{3}{4}$	$18\frac{3}{4}$		16
Marketing and household business	$2\frac{1}{2}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{3}{4}$		2
All homemaking activities —	$81\frac{1}{4}$	101	$90\frac{1}{2}$	78		$64\frac{3}{4}$
		<i>P</i>	<i>e</i>	<i>r</i>	<i>c</i>	<i>n</i>
Care and help of household members	10	24		14		3
Clothing and household linens	9	9		8		10
Dishwashing	15	12		17		16
Family activities*	10	6		10		12
Food preparation and care	25	22		24		27
Food preservation	6	6		6		7
House cleaning, care, and upkeep	22	19		19		24
Marketing and household business	3	2		2		3
All homemaking activities —	100	100		100		100

* Includes only the housewife's time.

making time devoted to this activity fell as the age of the youngest member decreased.

As has been pointed out, the numbers and the ages of household members were so interrelated as to obscure the true effects of each of these factors on homemaking time. When the households studied were classified according to both factors there were too few cases in some classes to be significant and the distribution was irregular. It seems, therefore, that the best illustration of the relationship between the age of the youngest household member and the use of time is found in the allocation of time among the classes of homemaking activities in the households with 4, 5, and 6 persons (which made up more than half of the total number of cases studied). In these 4-, 5-, and 6-person households, the age of the youngest member was closely related to the time spent on care and help of household members but it was seemingly unrelated to the time expenditure on any of the other classes of homemaking activities (Table 19).

Table 19. Numbers and Percentages of Homemaking Hours Devoted to Eight Classes of Activities in Households With 4, 5, and 6 Persons, Grouped According to the Age Level of the Youngest Member

Class of homemaking activity	All	Age level of the youngest member of the household				
		Under 2 years	2 to 7 years	8 to 17 years	18 years and over	
Number of households	102	16	21	41	24	
		<i>H</i>	<i>o</i>	<i>u</i>	<i>r</i>	<i>s</i>
Care and help of household members	7½	22½	12¼	3¼	½	
Clothing and household linens	6¾	8¾	6	6¾	6	
Dishwashing	11¾	10¼	11½	12½	11¾	
Family activities*	8	6¾	8¾	8½	7¼	
Food preparation and care	20¼	20	19¾	20¾	20	
Food preservation	4¾	5	5	5	3¾	
House cleaning, care, and upkeep	17	16	15½	18½	16¾	
Marketing and household business	2½	2½	2¼	3	2½	
All homemaking activities —	78½	91¼	80¾	78	68½	
		<i>P</i>	<i>e</i>	<i>r</i>	<i>c</i>	<i>n</i>
Care and help of household members	9	25	15	4		1
Clothing and household linens	9	9	7	9		9
Dishwashing	15	11	14	16		17
Family activities*	10	7	11	11		11
Food preparation and care	26	22	25	27		29
Food preservation	6	5	6	6		5
House cleaning, care, and upkeep	22	18	19	23		24
Marketing and household business	3	3	3	4		4
All homemaking activities —	100	100	100	100		100

* Includes only the housewife's time.

RELATIONSHIPS BETWEEN TIME EXPENDITURES AND ACCOMPLISHMENTS, AND BETWEEN TIME EXPENDITURES AND SOME EFFICIENCY FACTORS

Some of the families interviewed spent much less time on homemaking activities than did others. How many of these families with low time expenditures accomplished less, how many of them accomplished as much, and how many actually accomplished more than those spending greater amounts of time? How many of them did their jobs better than, as well as, or not as well as those spending more time? When more or better accomplishments were achieved without greater time expenditure, what factors contributed to this increased efficiency? The answers to these questions would be of considerable value to those trying to find ways of saving time and energy in housework.

Of course, a chief contributing factor to the accomplishment of a job in a relatively short time may be the speed of the worker's motions. Every individual has an optimum speed at which she is apt to work. This factor cannot be dealt with here because speed of workers certainly can not be learned through interviews. The skill of the worker is another factor which may be of considerable importance and which is beyond the scope of this study. The skill of the housewife is probably dependent to some extent on her years of homemaking experience, of which age may be a fair measure. None of the housewives included in this investigation was totally inexperienced because each had been the homemaker for the same family for at least a year. Also, each had lived for that time or longer in the house in which she was interviewed.

The psychological factor of motivation probably has a marked effect on time expenditure on homemaking activities, influencing the speed of work, time allocation, methods of work, and management. By using a different methodology, perhaps that of psychoanalysis, in the study of homemaking practices, other workers may be able to deal adequately with this factor of motivation. In an investigation such as this one, it can be little more than recognized. Some entirely inadequate clues to motivation are seen in the housewives' allocations of time among the various phases of homemaking and from their statements concerning the most liked and most disliked activities, problems facing them, tiring jobs, and activities for which they desire additional time.

Several activities occurred in so few homes or consumed so little time that they can not reasonably be included in this analysis. This is true for the helping of adult household members, invalid care, dry cleaning, pressing, preparation of the baby's food and of lunch

boxes, other food preparation, food care, upkeep of the house, fire building, lamp cleaning and care, water carrying, and marketing and household business. Sewing is not considered here because the time spent on it during a single week in the middle of the summer seems an entirely inadequate and unreliable measure of the time generally spent on it. Family activities are not dealt with because only the housewife's time was reported for them and too little is known concerning the type of activities included under this heading. Food preservation is excluded because time spent on it during the particular week covered by the interviews bore little relation to any factor except the maturity of the garden crops.

By using the available data it is possible to study the relationships between time expenditure and accomplishments on each of nine types of homemaking activities. The standards used for measuring the accomplishments differed, of course, with the different activities because of the variations in the nature of the activities. Some of these standards seem to satisfactorily measure the accomplishments of the specific activities to which they are applied. Others of them are not highly satisfactory. It is unfortunate that almost all of these standards are quantitative ones. Qualitative standards should be used in all judgments of homemaking procedures, but few qualitative standards of measurement can be applied to these data which were obtained by interviews, rather than through observation or by experimentation.

In the discussion which follows some factors of efficiency are also studied in relation to time expenditures on the nine types of activities for which accomplishments are considered.

Child Care

The total hours spent on child care tended to rise very slightly as the number of children under 8 years of age increased from one to four. At the same time, the hours spent per child fell somewhat (Fig. 6). These findings indicate that when there are 2, 3, or 4 children in a household they tend to entertain each other and to help each other with such activities as dressing. Warren¹⁵ reported much the same findings when she wrote, "Nearly all of the evidence indicated that where there was one child, about the same amount of time was used as where there were two or more children of about the same age, and so less time must have been used for each child. Perhaps when there was more than one child, the older child helped the younger ones. . . ."

¹⁵ New York (Cornell) Sta. Bul. 734, p. 50.

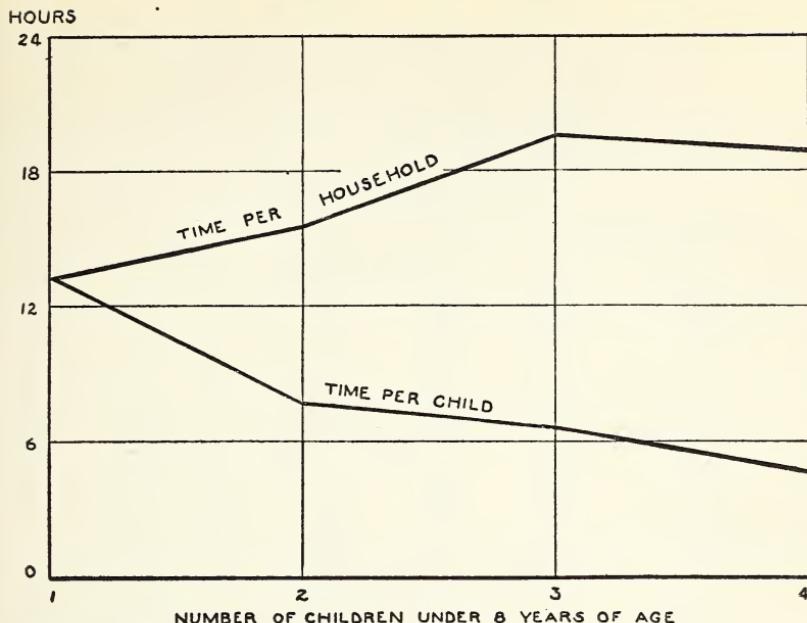


Fig. 6. Hours spent on child care in relation to the number of children under 8 years of age who were in the household.

Increasing time was spent on child care as the age of the youngest child decreased. In only 3 of the 21 households in which the youngest member was between 8 and 11 years of age was any time reported to have been spent on child care and in those three cases the time was only 1½ to 2½ hours for the week. An average of 3 hours was spent per household in caring for children when the youngest was 6 or 7 years old, and 12 hours when he was 4 or 5. The time rose slightly but steadily to 26¾ hours as his age fell to 6 months or less. Warren¹⁶ found in the New York homes that "As the age of the youngest person in the household increased the time used for care of the individual family members decreased. . . . There was a noticeable decrease at about 3 years of age and again at about 9 years."

Hours spent on an only child in the Vermont homes bore about the same relationship to the age of the child as hours spent on all children bore to the age of the youngest child. There were, however, so few cases of only children at the several age levels that the averages are unreliable (Table 20). The range in hours of care on an only child was not great for the children in any age level except the 2- or 3-year olds and for them there was the surprising range of from 4 to 35 hours. Some findings concerning the two cases reporting these extremes seem to be significant.

¹⁶ New York (Cornell) Sta. Bul. 734, p. 74.

Table 20. Classification of the Households by the Age of the Youngest Child and the Number of Children; and the Average Time Expenditure on Child Care by the Households in Each of These Classes

Note: Included are all households having a child under 8 years of age who was in the home for at least 3 days during the week preceding the day of the interview.

Age of youngest child	Number of children under 8 years of age				
	1 to 4	1	2	3	4
Number of households					
Under 7 months	10	4	4	2	0
7 to 12 months	13	3	2	4	4
13 to 18 months	6	2	1	3	0
2 ^{1/2} or 3 years	24	8	12	4	0
4 or 5 years	8	5	3	0	0
6 or 7 years	11	10	1	0	0
Under 8 years — — —	72	32	23	13	4
Hours of child care					
Under 7 months	26 $\frac{3}{4}$	25	26 $\frac{3}{4}$	30 $\frac{1}{4}$	...
7 to 12 months	22 $\frac{3}{4}$	28 $\frac{3}{4}$	18 $\frac{1}{4}$	24 $\frac{3}{4}$	18 $\frac{3}{4}$
13 to 18 months	17	20 $\frac{1}{2}$	20 $\frac{1}{4}$	14	...
2 ^{1/2} or 3 years	13 $\frac{1}{2}$	16 $\frac{1}{4}$	12	12 $\frac{3}{4}$	...
4 or 5 years	12	8 $\frac{1}{2}$	17 $\frac{3}{4}$	...	...
6 or 7 years	3	2 $\frac{1}{4}$	10	...	...
Under 8 years — — —	15 $\frac{1}{2}$	13 $\frac{1}{4}$	15 $\frac{1}{2}$	19 $\frac{1}{2}$	18 $\frac{3}{4}$

* Actually there were no children in these households who were reported by their mothers to be from 19 to 23 months of age. Reported to be 2 or 3 years of age are the children who had reached their second birthday, but had not reached their fourth birthday. The subsequent two age classes are similarly defined.

Both of these mothers were young and they had households of 4 or 5 persons. The one who reported spending only 4 hours during the week on her offspring said that child care was her most tiring task and that she could think of no homemaking activity which she really enjoyed. Her house was old and in poor condition and she had little labor-saving equipment. There were no evidences of combining of tasks or of careful planning of her work. Her menus indicated meals which were monotonous, not very attractive in appearance, and only fairly nutritious, although the average amount of time was spent preparing them.

In sharp contrast was the mother who spent 35 hours during the week on her child. She expressed a liking for almost all homemaking tasks and gave evidences of pride in her accomplishments and of efficiency in the performance of work. She spent less than the average number of hours on clothing and household linens, dish-washing, food preparation, and house cleaning, care, and upkeep. She saved time on these activities by planning the work, combining tasks, and using electrical equipment. Although she spent only half as much time on food preparation as did the average woman, her menus indicated that she served better than average meals.

Meal Preparation

The relationship between the number of meals served and the amount of time spent preparing them is shown in Table 21 and

Table 21. Ranges and Averages in the Time Spent During the Week Preparing Varying Numbers of Meals

Number of meals	Equivalent persons	Number of households	Hours spent on meal preparation			
			Lowest	Highest	Mean*	Median†
32- 52	2	13‡	9 1/4	20 1/2	13 1/2	14
53- 73	3	21	8 1/2	23 1/4	14 1/4	13 1/4
74- 94	4	39	8 1/4	27 3/4	16 1/2	14 1/2
95-115	5	35	8 3/4	26 1/4	16	15 3/4
116-136	6	26	9 1/2	33 1/4	19 1/4	17 1/2
137-157	7	24	13	32 1/4	20 1/4	20 1/4
158-178	8	12	12 3/4	30 3/4	22	21 3/4
179-199	9	6§	14 1/2	22 3/4	18 1/4	17 3/4

* "Mean" is the same as "arithmetic mean" or "arithmetic average," which in other parts of this publication is referred to as "average." As used here, the mean is obtained by totalling the number of hours spent on meal preparation in all households of a given class (as, for example, those serving from 32 to 52 meals) and then dividing the total hours by the number of households in the class.

† To obtain the "median" the hours spent in meal preparation by the households in a given class are arranged in order of magnitude. The time spent by that household which is half way in the array is the median. Thus, half of the homes spend less than the median time and half of them spend more than the median amount of time.

‡ One household with extremely low time expenditure has been omitted.

§ One household with extremely high time expenditure has been omitted.

Figure 7. The total time spent preparing meals tended to increase very slightly and the time spent per equivalent person fed to decrease somewhat as the number of meals served increased. About the same amount of time was spent on the preparation of meals for 2 as for 3, for 4 as for 5 or 6, and for 7 as for 8 or 9 equivalent persons. Therefore, the households were classified according to the number of meals served, as follows:

Group A, 32 to 73 meals, equivalent to those of 2 or 3 persons;

Group B, 74 to 136 meals, equivalent to those of 4, 5, or 6 persons;

Group C, 137 to 199 meals, equivalent to those of 7, 8, or 9 persons.

From the 178 households in which 199 or fewer meals were served, one with extremely high and one with extremely low time expenditure were rejected. Of the 176¹⁷ cases remaining, 34 were in Group A, 100 in Group B, and 42 in Group C. Medians of time expenditure for Groups A, B, and C were 14, 16 1/4, and 20 1/2 hours, respectively,

¹⁷ This figure is the same as the number of 2- to 9-person households (Tables 17, 18, and 19). However, not all of those households are included here and some additional households are included in this group. This is true because of the absence of household members at meal time and the presence of guests other than household members for meals. This accounts also for the differences in distribution of cases. For example, 2-person households totalled 10, while there were 13 households of 2 equivalent persons.

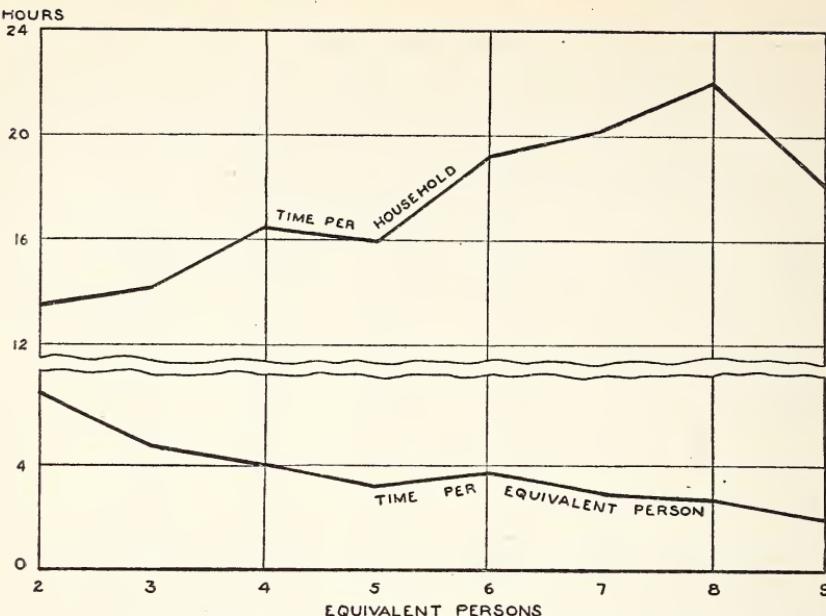


Fig. 7. Hours spent on meal preparation in households with from 2 to 9 equivalent persons.

during the week. The wide range in hours within each of these three groups suggested analyses of the available data in an effort to discover *why* meals were gotten in less time in some homes than in others. For these analyses low, medium, and high time expenditure on meal getting were each represented by about one-fourth of the cases in each of the three groups. Thus in Group B, the 25 households spending the lowest time, the 25 spending the highest time, and the 25 falling nearest to the median were used. From Groups A and C nine cases were used at each of the three levels of time expenditure.

Did households with high time expenditure serve better meals and those with low time expenditure poorer meals than the ones with the medium time expenditure? In search of the answer to this question the investigator considered the menus reported by each housewife when asked what she served for her usual breakfast, dinner, and supper. These menus were sorted into three classes which represent "poorest," "average," and "best" meals. For each family all three meals were considered as a unit on the bases of their probable nutritive value and the variety they offered. Classification of a family's meals as "best" means merely that they were judged to be better than the average of the meals reported by the families interviewed during the investigation. The "best" menus are not, therefore, recommended guides to meal planning. The classification of

the menus is based on the standards of the investigator rather than on those of the families.

The following were found to be typical menus of the three grades:

Breakfast	Dinner	Supper
Poorest Meals		
Hot or cold cereal	Meat	Warmed-over potatoes
Toast or bread	Potatoes, boiled	Fruit or leftover vegetables
Doughnuts or cookies	One or no vegetable	or meat
Coffee	Bread and butter	Bread and butter
	Pie, pudding, or no dessert	Cake or cookies
		Milk
Average Meals		
Hot or cold cereal	Meat	Warmed-over potatoes
Eggs	Milk gravy	Fruit or leftover vegetables
Toast	Potatoes, boiled	Bread and butter
Doughnuts or cookies	One cooked vegetable	Cake or cookies
Coffee	Bread and butter	Milk
	Pie	
	Milk	
Best Meals		
Citrus fruit or berries	Meat	Cold meat and potato salad
Hot cereal	Milk gravy	or
Eggs	Potatoes, boiled or baked	Hot dish, as macaroni and
Toast	One cooked vegetable	cheese
Muffins or doughnuts	Raw vegetable salad	Vegetable salad
Coffee	Bread and butter	Bread and butter
Milk	Pie, shortcake, or pudding	Fruit
	Milk	Cake or cookies
		Milk

The fruit desserts and the pie fillings were most often fresh raspberries, which were then in season. Almost half of the average meals included either berries or citrus fruit for breakfast. Fresh vegetables from the gardens were then being used and the cooked vegetable was most frequently string beans, although beets, beet greens, peas, and summer squash were also served. The vegetables served for supper in the poorest and in the average meals were generally those leftover from dinner of that day, being sometimes reheated and at other times served cold just as they were left from dinner. Lettuce, radishes, onions, cucumbers, and cabbage were the raw vegetables used in the salads. Some of the supper salads in the homes having the best meals included cold cooked vegetables in addition to the raw ones.

When the ratings of the meals were compared with the time spent on their preparation (Table 22), it was found that:

1. More of the meals classed as poorest received high than received low time expenditures;
2. The same number of the best meals received high as received low time expenditures;
3. About as many households with low time expenditure had the best as had the poorest meals;

4. Twice as many of the households with high time expenditure had the poorest as had the best meals.

Households in which large amounts of time were spent getting meals did not achieve better meals than did those with medium or low time expenditures. The question was then raised whether these households spent more or less time than did the others on the rest of their homemaking activities.

Table 22. Distribution of Households According to the Rating of Their Meals and the Time Spent Preparing Them

Rating of meals	All cases	Time on meal getting		
		Low	Medium	High
Number of homes				
Poorest	28	8	6	14
Average	79	28	29	22
Best	22	7	8	7
Total	129	43	43	43

It was found that the total time spent during the week on all homemaking activities, exclusive of meal getting, was $8\frac{1}{2}$ hours more for those households with high time expenditure on meals than for those with average time expenditure. The differences averaged 0, $6\frac{1}{2}$, and $23\frac{1}{4}$ hours for families in Groups A, B, and C, respectively. However, not all classes of homemaking activities received more time. Those Group C households with high time expenditure on meal preparation spent a little more time on all classes of homemaking activities except care and help of household members, and marketing and household business. Group B households with high time expenditures on meal getting spent slightly more time on all activities except marketing and household business, and food preparation exclusive of meal getting. Those of Group A spent slightly more time on clothing and household linens, dishwashing, and food preservation; and slightly less time on care and help of household members, family activities, marketing and household business, and food preparation other than meal getting.

For the families having low time expenditure on meal getting the total time spent on other homemaking activities was about the same as for those giving medium time to meals. The former, however, gave 2 or 3 hours more during the week to family activities and less time to dishwashing, and marketing and household business. This was true for Groups A, B, and C. There were other small increases and decreases, an activity receiving more time from one group and less from another.

Farm work by women and girls amounted to $5\frac{3}{4}$ hours more for the week in families with low time expenditure on meals and $2\frac{1}{4}$ hours more in those with high time expenditure on meals than in those with the medium time expenditure. The housewives gave about an hour more to farm work in households where time expenditure on meals was low and about an hour less where it was high than did the housewives in homes with medium time expenditure on meals.

The age of the homemaker had little relationship to the time which all household members spent on meal getting, except for the Group A households. In Group A, the average age of the housewife in households having high time expenditure on meals was 7 and 10 years, respectively, less than in households with medium and low time expenditures.

The amount of help given the housewife is related to the total amount of time spent on meal preparation. This is indicated by the fact that, in the cases reporting low time expenditure on meals, the housewife contributed 82 percent of the time on all homemaking activities and 92 percent of the time on meal preparation in contrast to 72 and 73 percents in households reporting high time expenditure and 78 and 89 percents in households spending the medium time on meals.

The types and condition of the equipment and the conveniences of the kitchen seem to influence the time expenditure on meal getting. This is indicated by the findings concerning some of the most important equipment. Good refrigeration¹⁸ may contribute to time saving in meal getting, as more than half of the homes with low time expenditure on meals had electric refrigerators and only a fourth of them had no refrigeration. In contrast, only 37 percent of those with high time expenditure on meals had electric refrigerators, while 33 percent had ice ones and 30 percent had no refrigerators at all. Among households with electric refrigerators, 40 percent had low time expenditure on meal getting, 33 percent had average, and 27 percent had high time expenditure.

There was some positive correlation between the rating of the adequacy of lighting (both natural and artificial) at the work table and at the sink and the time spent on getting meals. Surprisingly, no relationship was observed between time expenditure on preparing meals and the presence or absence of running hot and cold water at the sink. The influence of this factor probably was obscured by that of other factors which could not be held constant. Of course, time for carrying water was counted separately, regardless

¹⁸ There were no refrigerators in use in 50 homes, ice ones in 46 homes, and electric ones in 87 homes. One hundred and sixty of the homes had electricity.

of whether the water was used in meal preparation or for other purposes.

The type of cooking fuel in use seemed to have little correlation with the hours spent getting meals. However, the time spent in building fires and in keeping them burning and that spent emptying ashes, filling oil tanks, and cleaning stoves was excluded from time of meal getting, being counted under house care. Too, the efficiency of individual stoves and their condition at the time of the investigation were not considered and such factors, of course, must have influenced cooking time. In a number of homes two stoves were in use during the summer and the supplementary one was apt to be inconveniently placed in relation to the other working surfaces, the food supplies, and the small equipment. In several cases supplementary stoves were at considerable distances from the other surfaces, being on a porch or in the woodshed, pantry, or dining room. This inefficient placing of these supplementary stoves may have overcome savings which otherwise would have been credited to the quick-burning fuels used in them.

Previous investigations have proven that correct arrangement of working surfaces with relation to each other is a factor in time reduction because it shortens the distances walked and because it makes for continuity in the elements of a job. Good arrangement of work surfaces *makes possible* time saving in housework. It does not necessarily bring it about. Saving of time results, even under conditions of ideal arrangement, only when suitable methods of work and optimum speed are habitual to the worker. It may be that the women with well-arranged kitchens did not use as good methods and did not work as rapidly as did the other women included in the present investigation. This could be one reason for the lack of correlation found in this investigation between time expenditure on meal getting and average distances between work surfaces of the kitchen—stove, sink, work table, and dining table.

A more important reason for this lack of relationship is the fact that only *distances* between various working surfaces were considered. Such *distances* and the *direction* of one surface from another must be jointly considered if the arrangement is to be adequately analyzed. Because this did not seem to lend itself to statistical analysis, complete information concerning kitchen arrangement was not requested of the field agents. However, some of the agents sketched on their schedules the floor plans¹⁹ of some kitchens. Study of these 15 drawings indicates that analysis of the arrangements of an ade-

¹⁹ These plans were drawn because the agents found this to be the quickest way of recording the required data concerning kitchen arrangement. One agent drew most of the 15 plans and they were not of "selected" kitchens.

quate number of individual kitchens from each of the three levels of time expenditure on meal preparation might have yielded significant results.

Three of the kitchen floor plans were for households reporting low time expenditure on meal preparation, 10 were for households with medium time expenditure, and 2 were for households with high time expenditure. Kitchens A, B, and C (Fig. 8), in each of which time expenditure was low, were smaller and more compactly arranged than were kitchens D and E (Fig. 9), in which time expenditure was high. In all probability, a job could be done with fewer steps and in less time in the former group of kitchens than in the latter two kitchens. Work could probably be done in better sequence and with more continuity in kitchens A, B, and C than in kitchens D and E because some, at least, of the work surfaces in the first three kitchens were better placed with relation to the other work surfaces. Further study should be given to kitchen floor plans in relation to the time spent on kitchen work.

Among the 183 housewives there were only 8 who said meal getting was their most tiring task. There were 25 who liked meal getting better than any other homemaking activity and an additional 18 who mentioned it as one of their two or three best-liked tasks. In contrast to them were the 18 who most disliked meal getting and the 6 who said it was one of their two or three most-disliked tasks. The time expenditures of those liking best to get meals were about equally distributed in the low, medium, and high expenditure groups. Among those disliking meal getting, there were twice as many reporting low expenditure and twice as many reporting high expenditure as there were reporting medium time expenditure on meal getting. Those women who disliked the task and spent little time on it did not seem to serve poorer meals. Dislike may, therefore, have motivated these women to accomplish meal getting in less time, either by using more efficient methods or by working more rapidly. Those women disliking meal getting and spending more than average time on it, on the other hand, may have wasted time on the disliked task, or both their dislike and their high time expenditure may have been due to lack of skill in food preparation.

Lack of skill in cookery or inadequate knowledge concerning foods was said by several housewives to make meal getting a problem. Most of those who discussed problems in the area of meal preparation were bothered by difficulties of time management. The need for investigating methods of time management was clearly indicated in the analysis of the data concerning meal getting. Consideration should be given to time management on all homemaking activities

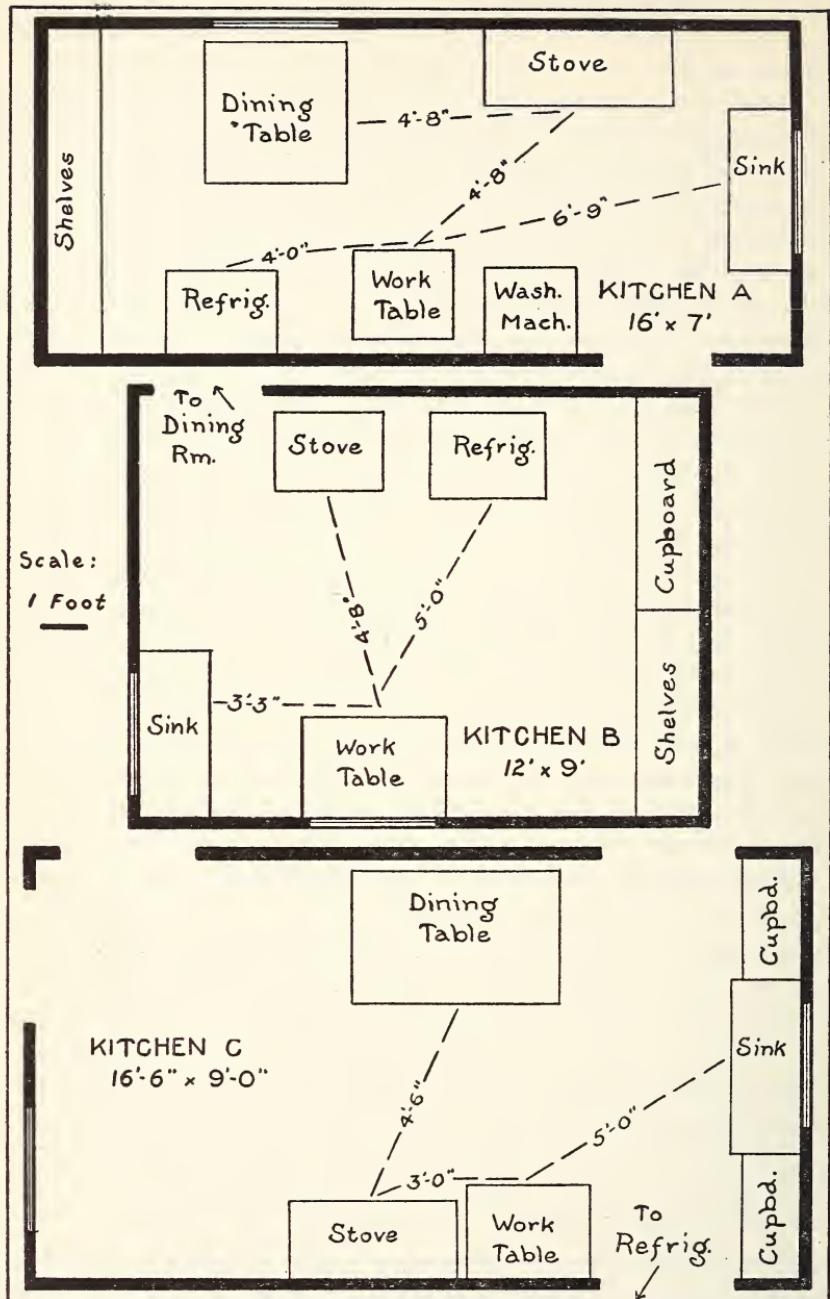


Fig. 8. Floor plans of three kitchens in which meals were gotten with low time expenditure.

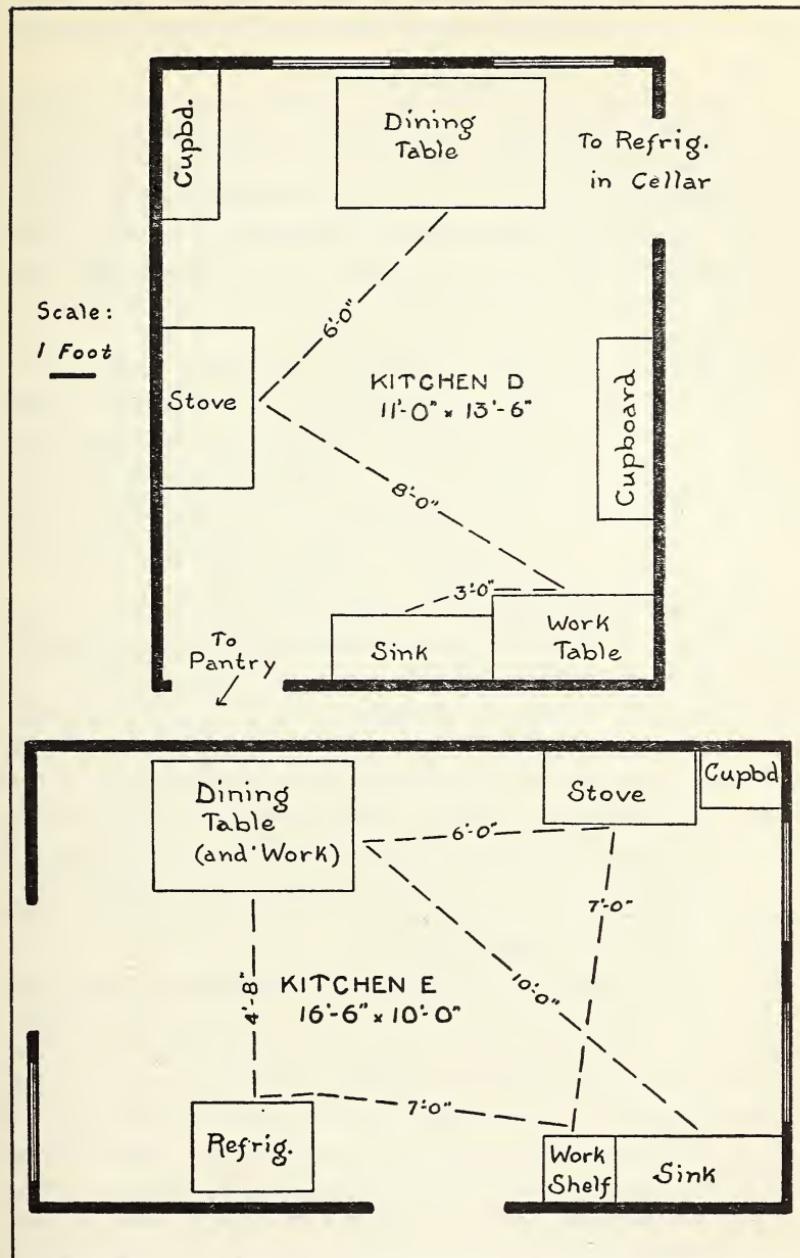


Fig. 9. Floor plans of two kitchens in which meals were gotten with high time expenditure.

in relation to that on meal getting because most of the time problems found in this area were not isolated from those of other homemaking activities.

About a sixth of all housewives reported that meal planning was a problem. Generally, their difficulties seemed to grow out of the frequency with which meals occur, the monotony of planning and of getting them, and the restrictions of war-time food rationing. The meal planning problems of some housewives were due to their lack of adequate information concerning foods. When to plan meals, for what period to plan at one time, and how best to plan were clearly phases of the meal planning problems.

Managerial factors such as planning, scheduling, and dispatching work, and dovetailing (or combining) one task with another have, in all probability, considerable influence on time expenditure on most, if not all, homemaking jobs. In meal preparation this factor may well be of even more importance than in some of the other activities because of the nature of the work and because meal getting consumes almost a fourth of all homemaking time.

A number of the housewives stated that one of their ways of saving time on meal getting was to combine other tasks—especially baking, cleaning, sewing, mending, and child care—with it. In spite of these statements, no correlation could be observed between time spent on meals and either the number who reported combining the getting of dinner with some other task or the type of task with which it was combined. This was true because, as is clearly shown by study of the data, the housewives reported their total elapsed time in such cases to have been spent on the meals. Thus, the time savings resulting from this combining of tasks were credited to the other tasks and not to meal preparation.

Some of the other means of saving time mentioned by the housewives were "short cuts" in serving, such as eating in the kitchen, using trays, putting the entire meal on the table before the family was seated, and using ovenware dishes. Use of suitable equipment was mentioned by several women, and by more of those spending low than of those spending high time on meal getting. Good methods of work were mentioned as timesavers by only two women with low time expenditure and by none of those with high time expenditure.

Simplification of the menu was the most frequently reported method of saving time on meal getting. The use of canned foods rather than fresh ones was the commonest form of such simplification. Other simplifications frequently reported were the serving of "leftovers"; the substitution of salads, sandwiches, or a hearty

soup for meat and vegetables; the use of quickly prepared desserts rather than pie or cake; and the omission of dessert.

Dishwashing

Time expenditure on dishwashing in the Group A homes (those serving from 32 to 73 meals during the week) ranged from $3\frac{1}{2}$ to 14 hours, with a median of $7\frac{1}{2}$ hours. In the Group B homes (those serving from 74 to 136 meals) the range was from $2\frac{1}{4}$ to $31\frac{1}{2}$, and the median $11\frac{3}{4}$ hours; and in the Group C homes (those serving from 137 to 199 meals) the range was from $5\frac{1}{4}$ to $38\frac{1}{4}$, and the median 14 hours.

A sample of 129 cases was used in studying dishwashing time in relation to other factors. This sample was drawn in the same way as was the one for food preparation, except that this one was, of course, based on the time spent on dishwashing. Consequently, the 43 cases falling in each of the three time levels for dishwashing (low, medium, and high time expenditures) were not the same households as were so ranked in the study of meal getting.

About one-half of the cases at the low, and about the same proportion of those at the high level of time expenditure had drainboards, good sinks, hot and cold running water, and good natural light at their sinks. The lack of correlation between these factors and time expenditure on dishwashing suggests that other factors, such as method of work, speed of the worker, motivation, and poor or insufficient planning and direction of work, may have overcome the effects of these conveniences. An interesting finding is that these conveniences were possessed by more of the housewives with medium time expenditure on dishwashing than by those with either low or high time expenditure, the low and the high cases varying in the same direction and in about the same number from the average. It will be remembered that there were similar findings concerning some factors studied in relation to time expenditure on meal getting.

When the housewives were asked what means they had found of saving time in dishwashing, about one-sixth of the entire number said that scalding the dishes and leaving them in the drainer to dry without wiping them was a timesaver. However, only a few more of those with low time expenditure than those with high time expenditure reported doing this. Another timesaving procedure was the washing of dishes for two or three meals at once. There were, however, different opinions regarding this procedure, some women saying that it took them less time and others that it took more time to wash dishes that way, rather than doing them immediately after each meal. The information which they gave indicated that possible saving of time

by this practice probably depended on (1) having enough dishes and utensils to use for the two or three meals, (2) having a convenient place for leaving the soiled dishes where they were not in the way of the workers, (3) soaking the dishes, and (4) using correct methods of dishwashing.

Several housewives pointed out rather obvious ways of saving time, such as as using hot water, using suitable detergents in sufficient quantity, and following good procedures, such as rinsing or scraping and stacking before commencing to wash, and scalding before drying or leaving to drain. Another means of saving time in dishwashing was to eliminate part of the job by soiling fewer dishes and utensils, which, of course, depended on simplification of cooking and of serving.

Another interesting finding was that in homes where the time expenditure on dishwashing was low, the housewife did 86 percent of the job and 87 percent of all homemaking activities. These percentages were 64 and 81 for the households with medium time expenditure on dishwashing, and 57 and 74 for those with high time expenditure. Does this mean that the pressure of much work to be done caused the worker to increase her speed or to use short cuts, or does it merely mean that children took longer to wash dishes than did their mothers? This question of time expenditure in relation to the person doing the work is one which seems to need some further investigation. It is to be hoped that such investigations will broaden out to include some study of the reasons why children often wash dishes and seldom help with the cooking, and of the reactions of the children and the mothers to such division of work.

There were 32 of the 183 housewives who disliked dishwashing more than any other task and 11 who found it to be their most tiring task. The most common reasons for disliking it were the frequency of the job, its monotony, and the fact that it consumed so much time. Dishwashing was said to be tiring because it required standing and, in some cases, because of poor equipment, such as low sinks. In view of these facts and of the finding concerning the amount of time spent on the task, it seems that work simplification needs to be applied to dishwashing in many homes.

Baking

The amounts and types of baking done varied considerably from home to home. The 53 housewives who baked bread produced an average of 6 loaves during the week. There were 115 who baked cakes, with an average of 2 during the week, and 114 who made pies, averaging 3 pies during the week. Doughnuts, cookies, and rolls

were made in 64, 55, and 41 homes, respectively. The numbers made averaged about 5 dozen doughnuts, 5 dozen cookies, and 2 dozen rolls. Other baking done in 2 homes amounted to 2 units in each home. Some of the households, of course, baked several products. In only 18 homes was no baking done during the week.

To make possible a comparison of accomplishments with time expenditures, the amounts of the several foods were reduced to "units." A loaf of bread, a cake, a pie, and a dozen each of cookies, cup cakes, doughnuts, or rolls were counted as a unit.

The number of units baked ranged from 1 to 33, with a median of 9. From 1 to 4 units were baked in one-fourth of the cases and 12 or more units in another fourth. One-half of the families doing any baking, therefore, baked from 5 to 11 units. That the amounts baked in a home were positively related to the size of the household is shown by the fact that households baking an average of 2½, 9, and 18½ units averaged 5, 5½, and 6½ persons. The presence of children in the home did not show a similar relationship to the number of units baked.

The total time spent in baking ranged from ¼ hour to 14½ hours for the week. Families baking from 1 to 4, 7 to 11, and 13 to 33 units (representing low, medium, and high amounts) spent an average of 1, 2½, and 3½ hours, respectively, on these baked products. The time per unit baked ranged from ¼ hour to 1¼ hours, the last figure being for a housewife who spent this amount of time on one fancy cake. Time per unit tended to fall as number of units rose, median time per unit being ¾ hour for those producing 1 to 4 units and ½ hour for those baking 13 to 33 units.

The home in which 14½ hours were spent on baking was the one in which the most baking (33 units) was done. This household consisted of a middle-aged man and wife and their four sons, aged 12 to 30. The homemaker did all of the housework with no help from anyone. She spent from 1 to 4 hours baking on each day except Sunday, producing 9 loaves of bread, 3 cakes, 8 dozen cookies, 5 dozen doughnuts, 4 pies, and 4 dozen rolls during the week.

Baking was regularly done on a specific day each week in almost half of the cases spending high time per unit (½ to ¾ hour), and in half of those spending low time per unit (¼ hour). A few housewives regularly baked on two or three days during the week.

Twenty-one percent of the households with high time expenditure per unit baked had children under 2 years of age and 38 percent of them had children under 8 years of age. Only 10 percent of those with low time expenditure per unit baked had children under 2 years of age and 30 percent of them had children under 8 years

of age. The size of the household was the same for those spending high time per unit as for those spending low time. The housewife contributed about 88 percent of the time spent in baking in the homes with low and in those with high time expenditure on this activity.

Findings in these homes indicated that there was considerable positive correlation between time per unit baked and the location of the food supplies and small equipment used in baking. The homes having low time expenditure per unit baked were compared with those having high time expenditure as to the distances between the work table and the storage places of butter, eggs, flour, milk, spices, sugar, measuring cup, measuring spoon, mixing bowl, and flour sifter. In the case of the flour sifter, the average distance was the same for the low and high expenditure groups. For each of the other nine items, however, the distance was greater in those households with high time expenditure. The totals of the distances for the 10 items averaged 69 feet in households with low time per unit baked, and 104½ feet in those with high time per unit baked.

Washing

The majority of the families did all or most of their own washing, only 14 of the 183 sending it out. There were 12 others who neither did washing at home nor sent it out during the particular week covered by the interviews. For the households with from 2 to 3, 4 to 6, and 7 to 9 persons, the time expenditures on washing during the week ranged from $\frac{1}{4}$ to 4, $\frac{1}{2}$ to $8\frac{1}{2}$, and $1\frac{1}{2}$ to 13 hours, respectively, with medians of 2, 3, and $3\frac{3}{4}$ hours. In the 4- to 6-person households, median time expenditure on washing was $4\frac{1}{2}$ hours in those with a child under 2 years of age, and 2 hours in those who had no child so young. In the large households, however, this time was about the same whether or not there was a young child.

There were 26 women who named washing as their best-liked housekeeping task. Their liking for it was said to be due either to their satisfaction in their accomplishment or to the fact that this was one of the few jobs for which they had a satisfactory machine which relieved them of tiring work. There were electric washing machines in 153 homes, gasoline ones in 20, and hand ones in 2, leaving only 8 of the total 183 homes with no washing machine. During the course of the interview each housewife was asked, "What equipment which you use saves your time?" This query was directed toward no specific tasks. It is interesting to note, therefore, that 149 housewives thought of their washing machine as one of their chief time savers. In spite of this fact, there were the same number of electric washing machines (15) among the 18 cases with lowest

time expenditure as among the 18 with the highest time expenditure on washing. The number of the other types of washing machines in each class was also about the same.

Questions concerning timesaving methods for washing brought a considerable variety of answers. Some of the most frequently mentioned practices were sorting clothes before commencing to wash, soaking clothes, hanging some clothes while the machine was running, and combining washing with other tasks. There was disagreement concerning the timesaving value of some washing procedures, which suggests that investigation of washing procedures and the teaching of correct procedures probably are needed. For example, some housewives stated that soaking clothes before washing saved time while others said this was a waste of time. The length of time for which some women reported soaking their clothes was much longer than the time recommended by specialists. While some housewives mentioned the importance of using plenty of clean hot water and of rinsing at least twice, others said that they saved time by rinsing only once and indicated that they did not change rinsing water or suds often enough to thoroughly clean the clothes.

Indications were that few of these housewives filled and emptied their washing machines and tubs by means of a hose or a pipe. The consequent carrying and lifting of water was the chief reason why 31 women found washing to be their most tiring job. Another reason was that they carried the basket full of wet clothes to the clothes line, rather than wheeling it, and then set it on the ground so that they had to stoop for each piece. Washing was a tiring job for some of the women because they had a poor machine, or none at all. Only a very few of the housewives expressed dislike for washing for any reason other than because it was tiring.

The considerable range in time expenditure on washing within households of approximately the same size indicates that a careful analysis of washing procedures might be worth-while.

Ironing

There were 12 families who sent out all or most of their ironing and 3 others who sent out flat work, shirts, or both. The ironing which was sent out was generally done in the home of a laundress living in the neighborhood. In the other cases it was done in a commercial laundry. There were 8 cases in which no ironing was done during the week of the investigation. The homemaker in each of these eight families generally ironed weekly but omitted it during that week because she was either especially busy or was not well.

Electric irons were used by 160 (or 87 percent) of these housewives. An additional woman used a gasoline iron. Four housewives had mangles as well as electric irons. No information was obtained concerning the quality or type of electric irons, nor concerning their condition at the time of the investigation, although these factors are known to be important to time expenditure in ironing. Since electric irons could not be replaced, and often could not be repaired, during the war, many of the irons may not have been in good condition. The 22 housewives who heated their irons on the stove had no electricity in their houses.

The time expenditure on ironing ranged from $\frac{1}{4}$ hour to $12\frac{1}{2}$ hours. It was less than an hour for five families. In three of these (which included no children and no woman other than the home-maker) this low time was said to be typical, while it was less than usual in the other two. The household with the highest time expenditure was a large one, including children and three grown daughters who worked in offices in the city and for whom wash dresses and blouses were ironed. Ironing time was very slightly higher in homes where there were young children than in other homes, and it increased slightly as the household size rose. Median ironing time expenditure for households of from 2 to 3, 4 to 6, and 7 to 9 persons were $1\frac{1}{4}$, 2, and $2\frac{1}{2}$ hours for the week, respectively.

There was a clear relationship between the time expenditure on ironing and the timesaving methods or short cuts of the housewives. This is one of the activities for which elimination of part of the job is the most important timesaver. In other words, those who spent the least time on this job actually ironed fewer things. These housewives eliminated part of their ironing by using unironed towels, sheets, pillow cases, work clothes, and play clothes. Another practice was eliminating bedspreads and linen tablecloths and napkins, substituting place doilies or oilcloth, and paper napkins. The use of seersucker play clothes for the children and seersucker dresses for the housewives also eliminated ironing.

Another way of saving time was the folding of flat pieces as they were taken from the line, and the running of the iron over the folded piece or over only the hems. Several housewives stated that they saved time in ironing by carefully hanging the clothes on the line so that they would dry with as few wrinkles as possible and then folding them carefully as they removed them from the line.

A fourth of all the women interviewed mentioned ironing as their most tiring job and an eighth of them disliked it more than any other task. The reason most often given for disliking ironing was that it was tiring. Other reasons were the attendant heat and steam

and the fact that it was such a time-consuming job and had to be done with considerable frequency and regularity. Most of the women who were greatly tired by ironing said this was because of the standing. The field agents listened to woman after woman tell of becoming very tired while she stood ironing. Only one of all the women interviewed said that she had learned to sit while ironing.

The average ironing board and the average chair are not suitable for use together and the women who have tried to use them together have been unsuccessful. It appears that boards or tables and chairs suitable for use in ironing should be designed and put on the market.

Another reason why ironing is tiring may be that the work area is not arranged so that the ironer can conveniently reach dampened clothes and satisfactorily dispose of the freshly ironed ones. A satisfactory arrangement to overcome these difficulties would not only save time and energy in getting clothes to and from the board but could also increase the possibility of the worker remaining seated while she irons. Few homes have built-in ironing boards and, consequently, many women spend several minutes getting the ironing board from a closet, unfolding it, getting the iron from a different place, and attaching it. Such "getting out" and "putting away" of equipment requires the expenditure of considerable time and energy and sometimes causes so much exertion and annoyance that time expenditures seem even greater than they actually are.

This may be one of the reasons, although it probably is not the most important one, why most housewives do all of their ironing on one day. Of course, housewives have washed on Mondays and ironed on Tuesdays for generations. It would be interesting and possibly quite worth-while to learn how the time expenditure and fatigue of the worker would be affected by doing these two big jobs on other than consecutive days and by doing the ironing on two or more days. A few of the housewives interviewed had found this last procedure to be advantageous.

Some excellent research on ironing equipment and procedures has lately been done. Further investigation seems to be needed. Certainly many housewives should apply work simplification to their ironing.

Mending

Accomplishments in mending could best be measured in terms of the numbers and types of articles mended and how well they were done. In the absence of these standards, the number of persons for whom mending is done is probably a fairly satisfactory measuring device, provided a considerable period of time is covered. One week is probably too short a period, especially when it falls in the canning

and haying season. A housewife who is especially busy is apt to allow most, if not all, of the mending to go undone. Then, at some time when she is not rushed, she will attempt to "catch up" on all accumulated articles needing mending. It is probably for this reason that no mending was reported to have been done in 41, 24, and 27 percent, respectively, of the households with 2 to 3, 4 to 6, and 7 to 9 persons during the week preceding the interviews.

One of the larger families spent 6 hours on mending, while two other large families and one of the smallest families spent 4 hours, and one medium-sized family spent $3\frac{1}{2}$ hours on this task. There were 3, 7, and 26 percent, respectively, of the small, medium, and large households which spent more than 2 hours on mending, while 10, 10, and 2 percent, respectively, gave only $\frac{1}{4}$ hour to it. The median time expenditure for households with 2 or 3 persons was $\frac{3}{4}$ hour, for those with from 4 to 6 persons it was 1 hour, and for those with from 7 to 9 persons it was $1\frac{1}{2}$ hours.

When they were asked about their means of saving time in mending, 103 housewives (56 percent of all of those interviewed) knew of no way to save time. Fifty women saved time by mending on the sewing machine. Overalls and work trousers were among the articles needing mending in these farm homes and about a dozen of the housewives reported that they saved time on them by ripping the leg seams before patching. Several of the women thought it was important to do the mending regularly, rather than allowing it to accumulate. A few suggested that mending should follow washing and ironing, before the clothes were put away. Another timesaver suggested was to keep articles needing mending, mending material, and sewing equipment in one convenient place. It will be remembered from the discussion of meal getting that several housewives combined mending with that activity. Probably they kept their mending in a convenient place in the kitchen and habitually "dovetailed" it with cooking and baking.

Mending seemed to be a time problem for a considerable number of women. Several of them stated specifically that this was one of the jobs for which they wanted more time because it was "never done." A few said they disliked the job or found it tiring because it was so time-consuming. It seems quite apparent from these findings that the time problem of mending is a threefold one. There is first the question of saving time in the actual performance of the job by using good methods of work. Then, there are the problems of planning suitable and adequate time for the job, and of actually doing the job on schedule.

Bedmaking

Bedmaking contrasts with mending in that it should, according to the standards of most housekeepers, be done daily. Many of the women felt that a bed not made before the middle of the morning proved them to be poor housekeepers. Probably this was one of the reasons which caused some of the busiest women to "make the bed hot," as they said. This was done by housewives who were doing farm work and who did not return upstairs until they were ready to go to bed.

More than three-fourths of all the housewives interviewed said there was no way to save time in making a bed, except just to leave it unmade. There were, however, seven housewives who had discovered that they could save time by completely making one side of a bed and then doing the other side. Four women thought it took less time for two persons to work together on this job. Several mentioned the fact that fewer pieces of bedding could be handled in less time and, consequently, one warmer blanket could be put on in less time than could two thinner ones. Several saved a little time by not using a bedspread in the busy season. Not only the number but the type of covers made a difference in the time expenditure, as several housewives pointed out. This factor influenced bedmaking time in another way because blankets and sheets which were long enough to be carefully tucked in and mitered made it possible to merely "straighten" the covers on some days.

The considerable variation in the weekly time expenditure on bedmaking seemingly depended on a combination of five factors: the type of beds and bedding in use, how well the beds were made, the speed of the worker, her methods of work, and the frequency with which beds were made. In several of the homes where the housewife had little or no help, the beds went unmade on the days when she was especially busy. Other especially busy women did such bedmaking as was done before they went downstairs in the morning, some of them pulling the covers into place and others folding them back over the bed and leaving them there. In the majority of cases the daily making of beds consisted of smoothing the bottom sheet and pulling the covers into place after the beds had been aired. Then every few days the beds were taken apart and completely remade.

In two-thirds of the homes either 3, 4, or 5 beds were in use. In those cases, the time spent on the daily making of a bed ranged from 1 to 16 minutes, with a median of $6\frac{1}{2}$ minutes. The most common time was 6 minutes.

Cleaning

The 183 houses had an average of 10 rooms, of which 9 were in regular use and 7 received daily care. The daily, weekly, and special cleaning required an average of 11½ hours during the week. What was a daily cleaning task in one home may have been a weekly or even a special one in another. There were 41 housewives who said they wished they could have more time for cleaning because they were unable to keep their rooms looking as well as they liked to have them. In their homes cleaning time averaged about the same number of hours as it did in all homes.

Nearly half (86) of all the homemakers reported house cleaning, or some phase of it, to be their most tiring or most disliked task, or both. It was the most tiring for 40, the most disliked by 25, and both the most tiring and most disliked for 21 women. The reasons commonly given for disliking cleaning were that it was tiring, it was time-consuming, and it had to be done too frequently. There were a few who said that cleaning was a problem because of lack of cooperation. These women felt that they needed help they were not receiving with their heaviest cleaning or that some household members tracked mud unnecessarily or failed to pick up and put away their own belongings.

The numbers of women reporting specific forms of house cleaning to be their most tiring or most disliked task, or both, were:

All cleaning, 26	Sweeping, 4
Mopping, 33	Window washing, 4
Dusting, 9	Miscellaneous cleaning, 5
Woodwork washing, 5	

In homes where all cleaning was disliked or found tiring, home-making time by all persons averaged 2 hours less, and cleaning time 1½ hours more during the week, than in all homes. In these cases the housewife contributed a smaller percentage of both cleaning time and all homemaking time and spent 2¼ hours more on farm work than did the average housewife. There was a full-time hired house-worker in three of these homes and a part-time houseworker in two of them. The homemaker's age, the household size, the percentage of households with children under 8 years of age, the age of the house, and the number of rooms in use averaged about the same in these 26 cases as in the entire 183.

It is not surprising that mopping was tiring and disliked. These farm homes had an average age of about 85 years, many of them being more than a hundred years old. Less than half (45 percent) of the kitchen floors were linoleum-covered and the remainder were either bare wood or had linoleum squares over part of them. In the older houses the floors, especially those of softwood, were splintery,

warped, and cracked, and not, therefore, easy to mop. For the women who had to carry water²⁰ into the house, mopping such floors was an arduous task.

The families were grouped into those who were using from 4 to 6, 7 to 10, and 11 to 20 rooms. For the 37, 106, and 40 cases in these three groups, the hours spent on cleaning during the week ranged from $1\frac{3}{4}$ to 18, $2\frac{3}{4}$ to 32, and $4\frac{1}{2}$ to $41\frac{1}{2}$, respectively, with medians of 8, $10\frac{3}{4}$, and 10 hours.

Almost three-fourths of all the families were included in the sample for which cleaning time was studied in relation to other factors. From each of the three groups with varying numbers of rooms were taken the fourth of the cases falling nearest to the median, the fourth with the lowest, and the fourth with the highest time expenditure on cleaning. Low, medium, and high cleaning time averaged $5\frac{1}{2}$, 10, and $19\frac{1}{2}$ hours for the 43 cases included in each of these classes. The hours on daily, weekly, and special cleaning time averaged 3, $2\frac{1}{4}$, and $\frac{1}{4}$ for the group with low time expenditure; 6, $3\frac{1}{4}$, and $\frac{3}{4}$ for the group with medium time expenditure; and $10\frac{1}{2}$, 6, and 3 for the group with high time expenditure. In these same groups of households, the housewives contributed 85, 84, and 69 percent of the cleaning time and 83, 81, and 70 percent of all homemaking time. The hours of farm work done by all women and girls in these families were $17\frac{1}{4}$, 11, and $14\frac{3}{4}$ and those by the housewife alone were 12, $7\frac{1}{4}$, and 8.

The average age of the housewife was practically the same in households at these three levels, as was also the number of them having a child under 2 years of age. Fewer of those with low than with either medium or high time expenditure had children under 8 years of age. Numbers of persons in the household were $4\frac{1}{2}$, $5\frac{3}{4}$, and $6\frac{1}{4}$ for those with low, medium, and high cleaning time. The average age of the house was practically the same for the three groups. There were fewer linoleum-covered kitchen floors among households with high than those with either medium or low time expenditure.

Less than half of all the homes had electric vacuum cleaners. The numbers having vacuum cleaners were 14, 20, and 26 at the low, medium, and high time levels. That there is negative correlation between cleaning time and the possession of a vacuum cleaner is due to the fact that in many of the houses there were few, if any, rugs on the floors, especially in those where cleaning time was least. Those women who did have rugs and had vacuum cleaners thought of them

²⁰ Water was carried into 57 (31 percent) of the homes, this being only the drinking water in some cases. There was running hot and cold water in 88 of the kitchens, running cold water in 41 of them, and pumps in 37. Only 17 houses, therefore, had no water in them.

as timesavers and laborsavers and several spoke of the attachments as timesavers.

More than three-fourths of the housewives could tell the interviewers of no means whereby they saved time in house cleaning. Those who did express ideas thought the best ways were to "have a place for everything" and to "keep things picked up." Several said that each household member should pick up and take care of his own belongings. Others recognized the importance of having the house in good condition if it is to be kept clean with ease. They mentioned especially linoleum-covered and waxed floors. A few of those who had rugs said they put the rugs away when they were so busy that cleaning became more of a problem than usual. Having cleaning equipment stored in convenient places, and preferably on each floor, was mentioned by a few women. There was considerable disagreement concerning the relation of time expenditure to the frequency with which cleaning jobs were done. While the majority of the housewives planned to clean on specific days, there was considerable variation in the choice of days for cleaning.

There were several indications that time management in cleaning was a problem in many of these homes. Cleaning methods and equipment seem to need some further thought. Certainly there is need to study housing conditions in relation to time expenditure and fatigue in cleaning.

SUMMARY

The time spent on homemaking activities during a summer week on 183 farms in Chittenden County, Vermont, averaged 82 $\frac{1}{4}$ hours.

The housewives contributed an average of 64 $\frac{1}{2}$ hours, or 78 percent of all homemaking time. They spent 35 or more hours on homemaking activities in 96 percent of the cases. Their homemaking hours for the week ranged from 18 $\frac{3}{4}$ to 120 $\frac{1}{4}$.

Work Done by Other Persons

Persons other than the housewife gave an average of 17 $\frac{3}{4}$ hours to homemaking. They gave some time to it in all except 24 homes but their hours were few in many of them.

As would be expected, the other persons were most frequently women and girls of the family. In some cases, however, these women and girls gave little time, and perhaps spent the little time they did give on their own clothing or on care

of their own rooms. In only 9 percent of the homes did all women and girls of the family other than the housewife spend a total of 35 or more hours during the week. In an additional 29 percent of the cases they spent between 10 and 34½ hours.

There were hired houseworkers in 26 cases. Their time expenditure ranged from 3 to 71 hours and averaged 25½ hours for the week. They most frequently did house cleaning, dishwashing, food preparation, washing, ironing, and child care.

About a third of the farm operators took some part in homemaking activities but they gave little time to such work. The jobs they most frequently did were buying, building fires, bringing fuel into the house, and carrying water.

In only a sixth of the homes were other men or boys of the family reported to have participated in homemaking activities. They gave small amounts of time to such jobs as carrying in fuel and water, dishwashing, and gathering vegetables.

Breakdown of Homemaking Time

Food preparation claimed a fourth of all homemaking time, and house cleaning, care, and upkeep received almost as much time. Dishwashing took 15 percent of the time. To these three classes of activities the housewife gave 28, 21, and 12 percent of her homemaking time and other persons 18, 25, and 28 percent of theirs.

The housewife gave 85 percent of the time spent on food preparation; 75 percent of that spent on house cleaning, care, and upkeep; and 60 percent of that spent on dishwashing. She contributed at least 74 percent of the time spent on each of the other five classes of homemaking activities.

Effects of Household Size

Total homemaking hours rose as the number of persons in the household increased and as the age of the youngest household member decreased.

Hours spent on homemaking by the housewife and also by other persons in the household rose as household size increased, hours of the other persons rising more sharply. Therefore, persons other than the housewife contributed greater proportions of the homemaking time in the larger households.

The allocation of time to the various homemaking activities varied considerably in amounts and in percentages with an increase in the size of the household and a decrease in the age of the youngest child.

The amount of time devoted to the care and help of household members increased from $\frac{1}{4}$ hour to 17 hours as household size rose from 2 to 9 persons. When the size of the household was disregarded and all households containing from 2 to 9 persons were classed according to the age of the youngest member, it was found that care and help of household members rose from $\frac{1}{2}$ hour during the week in households with adults only to $24\frac{1}{2}$ hours in households in which there was a child under 2 years of age.

About three times as many hours were spent on dishwashing and about twice as many on food preparation and on house cleaning, care, and upkeep in 9-person households as in 2-person ones. The proportion of all homemaking time going to dishwashing remained about the same, however, and the proportions of all hours spent on food preparation and on house cleaning, care, and upkeep decreased slightly as the household size rose from 2 to 9 persons.

Time Spent on Child Care

The total hours spent on child care tended to rise slightly as the number of children under 8 years of age rose from one to four. However, the time spent per child decreased. This seems to indicate that when there are several children in a household they entertain and help each other. Time expenditure on child care tended to increase as the age of the youngest child decreased. It averaged only 3 hours for the week when he was 6 or 7 years old and $26\frac{3}{4}$ hours when he was 6 months or less.

Preparing Food and Washing Dishes

The total time on meal getting tended to increase slightly and the time per person fed to decrease slightly as the number of meals served increased. There seemed to be little if any relationship between time expenditure on meal getting and the rating of the meals according to their probable nutritive value as indicated by the typical menus given by the housewives.

There were considerable differences among households of similar sizes in time expenditure on meal getting, due probably to motivation, management, and methods and conditions of work. Meal getting was one of the best-liked homemaking tasks of about a fourth of the housewives. Only about half as many housewives considered it one of their most disliked tasks. Several were conscious of problems of time management on meal preparation in relation to other activities.

Dishwashing time tended to increase as the number of meals served increased. It varied widely among households similar in size. This was due partly to the fact that children did much of the dishwashing in some homes while mothers did it in others, and the mothers worked more efficiently than the children. There were indications that differences in methods of work and management caused great variations in time expenditures on this job.

Baking time seemed to be correlated with the arrangement of equipment and of food supplies.

Washing, Ironing, and Mending

There were 26 housewives who liked washing better than any other housekeeping task because it was one for which they had a good machine to relieve them of tiring work. Others, however, had poor machines which caused them to spend unnecessary time and energy on this job. Many of them carried and lifted water needlessly and used inefficient methods of transporting clothes to the line.

There were electric irons in 87 percent of the homes (in all those having electricity) but nothing is known of the quality or condition of these irons. One housewife used a gasoline iron and 22 heated irons on the stove. There were 4 mangles. Timesaving methods and short cuts used by some housewives saved time in ironing. Eliminating part of the job was the most important means of saving time in ironing. A fourth of the housewives reported ironing to be their most tiring job. Most of these said it was tiring because of the standing involved.

Mending seemed to be a time problem for a number of women. When to do the job and how much to do at one time seemed to be their chief questions concerning it. The times at which it was done in the various homes suggests some interest-

ing points of time management. Several housewives kept their mending located in the kitchen and habitually dovetailed it with cooking and baking. Some kept it in the living room where they did it while talking with other family members or while listening to the radio. How to mend was a problem to a few housewives who said they lacked skill in this work.

House Care and Upkeep

More than three-fourths of the housewives interviewed said there was no way to save time in making a bed except to allow it to go unmade or to make it poorly. In contrast there were a few women who reported efficient methods of doing this job well.

Nearly half of the housewives reported house cleaning, or some phase of it, to be their most tiring or most disliked task, or both. They had little efficient cleaning equipment with which to do a sizable job. The 183 farm houses had an average of 10 rooms, of which 9 were in regular use and 7 received daily care.

The houses were said to have an average age of about 85 years. Less than half of the kitchen floors were linoleum-covered. Many of the bare floors were splintery, warped, and cracked. There was electricity in 87 percent of these homes. Nine percent of them had no water indoors. There was running hot and cold water in 48 percent of the kitchens, running cold water in 23 percent, and pumps in 20 percent of them.

APPENDIX

A. Definitions and Classifications

Activity—Any process which a person carried on or participated in. For the housewife the total hours of the week were accounted for under 11 classes, or types, of activities which are defined or explained under the class names. These classes were farm work and business, gainful employment, gardening and care of grounds, homemaking, illness, meal eating, neighborly or community activities, personal activities, resting, sleeping, and miscellaneous activities.

Additional meals—Meals served to household members or transients at any time other than the three regular meals of the day. Included, for example, is dinner for the farm operator when he arrived home after the other members of the household had finished dinner.

Ages—All ages are reported as of the latest birthday rather than of the nearest one. A child said to be 8 years old, for example, had reached his eighth birthday but had not reached his ninth one.

Baby's food—Preparing formulas, fruit juices, strained vegetables; sterilizing bottles; etc. Feeding infants or small children was not included, being classed as *Child care*.

Baking—Making bread, cakes, cookies, doughnuts, pies, rolls, etc. Included are the cleaning up which accompanied or followed baking processes, rather than being left to be done with dishes after a meal. Making biscuits, johnny cake, muffins, and pudding were considered as part of *Meal getting*.

Care and help of household members—Care of children and of invalids and the helping of adult household members.

Child care—Amusing, reading, or telling stories; directing play; bathing and washing; care of minor injuries of a child; combing hair; dressing and undressing; feeding (but not preparing the food); getting the child ready and off to school, Sunday school, church, play, etc.; hospital visiting (not nursing) of a child of the family; teaching, training, or helping with lessons; transporting to school, Sunday school, doctor, hospital, etc.; any other care of infants and children of the household.

Cleaning—See *House cleaning, care, and upkeep*.

Clothing and household linens—Dry cleaning; ironing, including sprinkling and folding preparatory to ironing; mending and repairing; pressing; sewing, both making and remodeling; mothproofing; washing, including collecting, sorting, soaking, water carrying, tub filling, putting up lines, hanging clothes on and taking them off the line, as well as rinsing, wringing, bleaching, and starching.

Daily cleaning—The cleaning jobs generally done daily in a specific home.

Dishwashing—Clearing the table; scraping, rinsing, and stacking dishes and carrying them to the sink; putting away or disposing of food from the table; washing; scalding or rinsing; drying; putting dishes away; cleaning sink after dishwashing; and putting away dishwashing equipment. Included here were all dishes, glasses, silver, and utensils used in eating and serving meals; and all those used in meal preparation, food preservation, baking, etc., if they were left to be washed with the dishes after a meal. The cleaning up which accompanied or immediately followed meal preparation, baking, food preservation, etc., was considered a part of those processes.

Dwelling—A place of abode. There was more than one occupied house on some farms and some houses contained more than one dwelling unit, each occupied by an economic family. Some dwelling units were in buildings other than a house, as in a garage. The place of abode of a farmer, whether an owner, renter, manager, or hired farm laborer, was considered a farm dwelling. The dwelling of one who was not engaged in farming was not considered a farm dwelling, even though it was located on a farm and regardless of whether it was occupied by the farm owner.

Economic family—See *Family*.

Eligibility—To be included in this study a family had to meet nine eligibility requirements. 1. A member of the family operated a farm as owner or as renter. 2. The chief source of farm income was dairying, maple products, poultry, potatoes, fruits, vegetables, or any combination of these. (This applied to the farm income of the family being considered. Families whose chief source of income was the wages of a farm laborer or the salary of a farm manager on any type of farm were ineligible.) 3. The gross cash income from farm products sold by the family during 1942 or expected to be sold during 1943 equaled at least \$500. 4. The farm operator was a man of 18 or more years. 5. The homemaker was a woman of 18 or more years.

6. The homemaker was the farm operator's wife, mother, sister, or daughter, rather than a hired housekeeper. 7. The person who was the homemaker at the time of the interview had been the homemaker for that family for at least the 12 months preceding the time of the interview. 8. If the farm operator's wife lived in the home she was the homemaker. 9. The family had lived for at least the preceding 12 months in the house which it occupied at the time of the interview.

Equivalent persons—Used only in the discussion of the relationship between the number of meals served and the time spent in meal preparation. The number of meals served in the home during the week to household members and to persons not members of the household were converted into equivalent persons. For example from 32 to 52 meals was considered as 2 equivalent persons, and from 53 to 73 meals was considered as 3 equivalent persons.

Family—The economic family, a group of persons who lived in the same dwelling, shared a common table, pooled incomes, and depended on family funds for most of their support. Among those included as family members were sons and daughters dependent on family income for their support who were away during the week of the investigation, and sons and daughters gainfully employed and living at home but not paying for their room or board. Not included were dependents (other than sons and daughters mentioned above) living away from home, sons and daughters in the service, and sons and daughters living at home and paying board and room rent.

Family activities—Educational, musical, recreational, religious, and social activities shared by two or more members of the family. While the regular time of meal eating was not so classed, extra time at the table on birthdays or anniversary celebrations was. Family activities took place either in the home or away from home, and included vacation trips. Attendance at meetings by two or more family members was classed here, unless such attendance was believed to be a contribution to community life as, for example, attendance at town meeting or at a benefit party.

Farm—A plot or plots of land of three or more acres lying outside of a city, village, or other thickly populated area, on which farming operations were conducted or from which farm products with a value of at least \$250 were sold or used by the family during the year. The farming operations were performed by an operator working alone; by an operator who was assisted by members of his family or hired employees; or by partners. The definition is based on that used in the 16th census.

Farm family—An economic family headed by a farm operator or a farm laborer.

Farm operator—The person responsible for the farm enterprise, either performing the labor himself or directly supervising it. The operator may have been an owner, renter, or manager.

Farm work and business—The only farm work considered in this investigation was that for which women or girls of the family were responsible or with which they helped on the farm operated by the family. This farm work is classed under:

Accounting and business—Keeping accounts for the farm; buying for the farm; writing letters concerning farm business; keeping records of any form for the farm business; selling farm products, including talking to prospective customers; telephoning concerning farm business.

Gardening and fruits—Planting, caring for, and harvesting of garden products, berries, and fruits for sale (not including care of the home garden or berrying for home use).

Haying and field work—Cutting, raking, mowing, or stacking hay; planting, cultivating, or harvesting field crops; driving team, tractor, or truck in haying or field work.

Livestock care—Feeding, tending, watering calves, cows, horses, or other livestock (not including poultry or pets).

Milking—By hand or machine.

Milking equipment care—Washing and care of milk utensils or milking machines.

Poultry and eggs—Feeding, watering, caring for chicks, hens, and any other poultry; tending incubator; gathering, grading, and packing eggs; caring for and cleaning poultry houses and lots.

Trips and transportation—Trucking of feed, equipment, or supplies to the farm; hauling farm products to market; transporting of farm workers.

Miscellaneous farm work—Farm jobs not falling under any of the above eight classes.

Fire building and care—Building fires, emptying ashes, carrying fuel, chopping wood and kindling, filling oil stove tanks, and putting fuel into stoves.

Food care—Cleaning and caring for bread box, refrigerator, etc.; putting away food when it came from the market. Not included was putting away left-over food from the table, which was classified with dishwashing.

Food preparation and care—Preparing baby's food; baking; food care; preparing lunch boxes, getting meals, and other food preparation. Preparing food for sale was classed under *Gainful employment*; and preparing food for church suppers, etc., or as a gift for a neighbor who was ill, was classed under *Neighboring and community activities*.

Food preservation—Canning, dehydrating, or preparing for freezing fruits, vegetables, chickens, meats, etc., for household use; storing fruits and vegetables in cellars, pits, etc.; gathering and preparing fruits and vegetables for preservation; making jams, jellies, pickles, relishes, mincemeat, sauerkraut, etc.; rendering lard and curing meat; making special trips to frozen food lockers with food for storage.

Gainful employment—Any money-making endeavor other than the farm enterprise or taking in boarders and roomers was deemed gainful employment for the purposes of this investigation. Sources of earnings actually reported by the homemakers included cooking in their own homes and selling the products, housework or cooking in the homes of others, washing and ironing for others, playing or singing in church for remuneration, and working as town clerk, school board member, and postmistress.

Gardening and care of grounds—Planting and cultivating the home vegetable garden (but not gathering vegetables); flower gardening, including cutting flowers; caring for the lawn and grounds.

Helping adult household members—Caring for minor injuries of an adult; visiting an adult member of the household in a hospital; transporting adults to doctor, hospital, and elsewhere provided such transportation was not for farm work and business or for family activities; and helping adult household members in other ways. This class did not include any activities which could be classed under either *Family activities* or *Invalid care*.

Homemaker—One who bore the chief responsibility for the management of a house and family. She either performed the labor of housekeeping or supervised its performance by family members or by hired workers. Although differences in meaning of the words homemaker, home manager, and housewife are recognized by the author, the words were used in this publication as synonymous terms.

All homemakers included in this investigation were women of 18 or more years of age. Each was the wife of a farm operator, or if he had no wife living in the home, was his mother, sister, or daughter. Each of them had been the homemaker for the family for at least 12 months preceding the interview.

Homemaking activities—To the author, as to other home economists, the term homemaking includes many activities not specifically dealt with under that heading in this publication. Homemaking embraces all phases of family living and is concerned with personality development, sharing of group experiences, physical development, and community participation by family members, as well as the provision and sharing of resources such as food, clothing, and housing.

For the discussion on time expenditures in this publication, homemaking activities were grouped into eight classes, as follows: Care and help of household members; clothing and household linens; dishwashing; family activities; food preparation; food preservation; house cleaning, care, and upkeep; and marketing and household business.

Time spent on these homemaking activities by all persons—housewife, other family members, hired helpers, and guests or roomers who worked within the home—was included. Laundering, baking, and other work done for the family outside the home was not included in homemaking time. Baking, canning, cooking, ironing, sewing, washing, etc., done for pay either in the home or elsewhere were classed as gainful employment rather than as homemaking. However, the small amount of work that was done by a few families for boarders and roomers was included under homemaking.

House cleaning, care, and upkeep—Bedmaking, cleaning, fire building and tending, lamp cleaning and filling, upkeep of the house, and water carrying. Included under cleaning were such tasks as arranging rooms; putting away belongings; dry mopping; dusting, scrubbing, sweeping, and vacuuming; washing windows and woodwork; waxing floors; cleaning and blacking stoves; airing bedding; caring for curtains, including pressing them, putting them up, and washing and ironing them if this was done separately from the regular laundry; cleaning and polishing silver and other metals; and caring for indoor plants and flowers. According to the frequency with which a task was done, it was classed as daily, weekly, and special cleaning.

Household—The members of the economic family, and any guests, boarders, roomers, and hired farm or house workers who lodged in the house for at least three nights or had at least 10 meals there during the week preceding the day of the interview. Only individuals meeting this definition were counted in determinations of household size. No calculations were made of "equivalent persons" in determining household size.

Housewife—This term was used in this publication as synonymous with homemaker.

Illness—The time reported here was that during which the housewife was too ill to engage in homemaking or other endeavors. Time spent by her in caring for other persons who were ill was listed under *Invalid care* if they were household members and under *Neighborly and community activities* if they

were not. Her visits to physicians, etc., were classed as *Personal activities*.

Invalid care—Home nursing of children or adults of the household who were ill or seriously injured.

Ironing—See *Clothing and household linens*.

Lunch boxes—Cooking foods and making sandwiches, salads, drinks, etc. for lunch boxes; packing lunch boxes.

Marketing and household business—Keeping accounts and other records for the house and family (but not for the farm business), budgeting and financial planning for the family, buying for the family and house, planning shopping lists, telephoning for household or family business, writing checks, etc.

Meal eating—The homemaker's time for eating meals did not include time she spent in serving others at the table. Extra time spent at the table as part of family celebrations or entertaining was counted with *Family activities*.

Meal getting—Preparing breakfast, dinner, supper, and additional meals for household members and for transients having meals in the home. Included were preparing and cooking foods; making biscuits, johnny cake, muffins, puddings, etc.; gathering and preparing fruits and vegetables for meals; setting the table, serving meals, and waiting on the table; and cleaning up and washing utensils when this accompanied or followed the meal-getting processes rather than being left to be done with the dishwashing following the meal.

Miscellaneous activities—Those which could not be classed under any of the 10 other groups of activities. The time spent by the homemaker in waiting for other persons and during which she was not engaged in any other activity was listed here. Other activities included in this class were attending auctions, caring for an automobile, caring for pets, going for mail, and doing fancy work.

Neighborly and community activities—Participating in the endeavors of civic, educational, professional, recreational, religious, and welfare organizations; and helping persons outside the household. Included were working on committees, leading 4-H groups, rolling bandages for the Red Cross, doing volunteer nursing, making sick calls, attending funerals, preparing food for church suppers, playing for Sunday school if unpaid, and transporting a neighbor to the doctor or to a meeting.

Operator—See *Farm operator*.

Other food preparation—Making butter or cheese, etc.; preparing light refreshments.

Personal activities—Bathing, dressing, washing hair, paying visits to a beauty parlor, and other activities usually thought of as personal care; paying visits to a dentist, oculist, or physician for treatment of self, including travel to and from the office when special trips were necessitated; recreation, attending meetings, entertaining, and worship if such activities were not of the nature of family activities or of neighborly and community activities; and reading, letter writing, etc.

Resting—Relaxing or sleeping during the daytime or evening if the homemaker was not engaged in any other class of activity. Reading, listening to the radio, playing the piano, etc., were classed as either *Personal activities* or *Family activities*, rather than as resting. Mending was counted with *Clothing and household linens*.

Sleeping—Sleeping at night.

Special cleaning—Cleaning jobs done infrequently, periodically, or seasonally, as well as unusual cleaning.

Transients—Persons other than members of the economic family who lodged in the home for one or two nights or had from one to nine meals in the home during the week.

Upkeep—Caning chairs; painting, refinishing, or repairing furniture; painting floors, walls, or woodwork; hanging or patching wallpaper and removing old wallpaper; supervising, decorating, or preparing rooms for papering; upholstering; etc.

Washing—See *Clothing and household linens*.

Water carrying—Carrying water into the house except that used in washing clothes and household linens or some other specific task to which the time was credited. Not included was carrying water within the house nor carrying out waste water.

Weekly cleaning—Cleaning jobs generally done in a specific home at least once a week, but not as often as daily.

B. Household Composition

Table I. Percentage Distribution of Households of Various Sizes According to the Age Level of the Youngest Member

Total persons in household	Number of cases	Age level of youngest person			
		18 years and up	8-17 years	2-7 years	Under 2 years
<i>Percentage of households</i>					
2	10	100	....	....	....
3	19	53	37	10	0
4	38	37	39	16	8
5	30	17	50	13	20
6	34	15	32	32	21
7	20	5	20	55	20
8	16	6	44	31	19
9	9	0	11	33	56
10	3	0	33	0	67
11	2	0	0	100	0
12	2	0	0	50	50
All	183	25	33	25	17

Table II. Percentages of Households of Various Sizes Having a Member or Members Other Than the Farm Operator and the Homemaker in Each of Four Age Levels

Total persons in household	Percentage of cases	Age levels of persons other than farm operator and homemaker*			
		18 years and up	8-17 years	2-7 years	Under 2 years
<i>Percentage of households</i>					
2†	5	....	....	....	....
3	10	53	37	10	0
4	21	68	50	18	8
5	16	77	67	20	20
6	19	68	76	47	21
7	11	80	85	70	20
8	9	94	81	44	19
9	5	89	89	67	56
10	2	100	100	67	67
11	1	100	100	100	0
12	1	50	100	100	50
All	100	60	64	35	17

* An entry in one of these columns is the percentage of the total number of households of a given size which had in the given age level one or more members other than the farm operator and the homemaker. A given household of 10 members, for example, may be included in any one, two, three, or all four of these columns.

† Two-person households were composed of the farm operator and the homemaker.

Table III. Distribution of Households of Various Sizes by Age Levels of Members Other Than the Farm Operator and the Homemaker

household members Age levels* of other	Total number of persons in household										
	All	3	4	5	6	7	8	9	10	11	12
<i>Number of households</i>											
A, B, C, D	6	....	....	....	....	1	....	3	2	....	....
A, B, C	6	....	....	....	4	1	....	....	....	....	1
A, B, D	4	....	....	1	....	1	2	....	....	....	....
A, B	3	....	1	1	1	....	....	....	....	....	....
A, C, D	5	....	....	2	1	1	....	1	....	....	....
A, C	5	....	2	1	1	....	1	....	....	....	....
A, D	2	....	....	1	....	....	....	1	....	....	....
B, C, D	23	....	....	1	5	7	5	2	....	2	1
B, C	11	....	2	1	4	3	....	1	....	....	....
B, D	7	....	2	2	2	1	....	....	....	....	....
B	4	2	2	....	....	....	....	....	....	....	....
C, D	44	....	10	11	10	4	7	1	1	....	....
C	17	7	5	4	1	....	....	....	....	....	....
D	36	10	14	5	5	1	1	....	....	....	....
Total households	—	173†	19	38	30	34	20	16	9	3	2

* A = under 2 years; B = 2-7 years; C = 8-17 years; and D = 18 years or older.

† Ten households having only farm operator and homemaker are not included in this table.

Table IV. Households of Varying Sizes Having Different Numbers of Members Other Than the Farm Operator and the Homemaker in Each of Four Age Levels

Age levels and number of persons in the levels	Total number of persons in household											
	All	3	4	5	6	7	8	9	10	11	12	
<i>Number of households</i>												
Under 2 years:												
1 person	29	....	3	6	5	4	3	5	2	....	1
2 persons	2	....	....	2	....	....	....	....	....	....	....
	31	0	3	6	7	4	3	5	2	0	1	
2 to 7 years:												
1 person	31	2	5	3	8	10	1	1	....	....	1
2 persons	24	....	2	3	7	3	3	2	2	1	1
3 persons	8	....	....	1	1	3	2	....	1	....	....
4 persons	0	....	....	....	....	....	....	....	....	....	....
5 persons	1	....	....	....	....	....	1	....	....	....	....
	64	2	7	6	16	14	7	6	2	2	2	
8 to 17 years:												
1 person	49	7	14	10	11	2	3	2	....	....	....
2 persons	24	....	5	6	5	5	....	3	....	....	....
3 persons	32	....	....	4	9	7	7	1	3	1	....
4 persons	8	....	....	1	3	1	2	....	....	....	1
5 persons	3	....	....	....	....	2	....	....	1	....	....
6 persons	0	....	....	....	....	....	....	....	....	....	....
7 persons	1	....	....	....	....	....	....	....	....	....	1
	117	7	19	20	26	17	13	8	3	2	2	
18 or more years:												
1 person	53	10	12	10	8	5	3	4	....	1	....
2 persons	45	....	14	8	8	8	5	....	2	....	....
3 persons	15	....	....	5	2	2	5	1	....	....	....
4 persons	6	....	....	....	5	....	....	....	1	....	....
5 persons	6	....	....	....	....	1	1	2	1	....	1
6 persons	2	....	....	....	....	1	1	....	....	....	....
	127	10	26	23	23	16	15	8	3	2	1	

Table V. Distribution by Household Status of Persons of Four Age Levels

Household status	Age levels				
	All ages	18 or over	8-17	2-7	Under 2
<i>Number of persons</i>					
Operator and homemaker	366	366	....	....	....
Others in family	459	131	189	106	33
All family members — — —	825	497	189	106	33
Hired farm workers	106	69	37	....	....
Hired house workers	14	6	8	....	....
Guests	48	34	12	2	....
Boarders and/or roomers	15	14	1	....	....
All non-family members — —	183	123	58	2	....
Total persons — — — —	1,008	620	247	108	33